

NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

**FLYING HOUR PROGRAM CASH MANAGEMENT AT
COMMANDER NAVAL AIR FORCES PACIFIC**

by

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June 2001

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20011116 159

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	June 2001	Master's Thesis
4. TITLE AND SUBTITLE: Flying Hour Program Cash Management at Commander Naval Air Forces Pacific		5. FUNDING NUMBERS
6. AUTHOR(S) William E. Philips		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000		8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A		10. SPONSORING / MONITORING AGENCY REPORT NUMBER
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.		
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.		12b. DISTRIBUTION CODE

13. ABSTRACT (maximum 200 words)

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This thesis analyzed CNAP FHP cash management for fiscal years 1998, 1999, and 2000, including techniques used by managers to execute the under-funded FHP. It concluded that CNAP managers use risk contingent cash management strategies and techniques to fund requirements while carefully avoiding Anti-deficiency Act violations. These techniques include delaying required aviation repairs to future years, reducing at home squadron flying hours and using Unfilled Customer Orders.

Navy budgeting does not recognize valid liabilities for some FHP related programs. The FHP is treated as discretionary and used annually as a source to pay these recurring liabilities, causing CNAP to be reactive in cash deficit control, always in need of fiscal rescue. CNAP transaction costs are increased by constant management of funding shortfalls. The risk of failing to meet fleet readiness requirements has grown as a consequence.

14. SUBJECT TERMS Flying Hour Program, DoD Budgeting and Execution, Naval Aviation		15. NUMBER OF PAGES 94	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18

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**FLYING HOUR PROGRAM CASH MANAGEMENT AT COMMANDER
NAVAL AIR FORCES PACIFIC**

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
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I. INTRODUCTION

A. BACKGROUND

The defense of the United States depends on credible, reliable armed forces operating throughout the globe, protecting American interests. Historically, one of the most vital components of the U.S. military has been Naval Aviation.

All of America's armed forces make valuable contributions to protecting U.S. interests, citizens, and friends wherever and whenever they might be at risk. But the Navy-Marine Corps team - and naval air power - play a unique role. The United States is a maritime nation with vital national interests which depend upon the nation's ability to control the seas. In the wars and conflicts in which the United States found itself engaged during the 20th century, typically more than 95 percent of all material and equipment needed for victory went by sea. This will continue to be the case, and the United States will continue to require seaborne access throughout the world - access that can only be assured by robust naval forces. U.S. naval forces also possess extraordinary strategic reach, and the daily operations of America's Sailors and Marines have the potential to affect the majority of the world's inhabitants. Seventy-five percent of the earth's population and a similar proportion of national capitals and major economic centers lie in the littorals. This means particularly that Naval Aviation's expeditionary operations from the sea provide the United States with an enduring and decisive capability to shape and influence events on land [Ref. 1].

This passage taken from the Navy and Marine Corps document, *Naval Aviation . . . Forward Air Power . . . From the Sea*, highlights the importance of Naval Aviation in

projection of U.S. power and defense of the country. U.S. Naval Aviation consists of a variety of platforms capable of operating from ships at sea and shore bases. Performing a wide range of missions from surveillance to land attack, these forces form the nucleus of forward presence worldwide.

The monetary vehicle used to support the daily operations of Naval Aviation and its hardware is the Flying Hour Program (FHP), which receives funding from Congress via the Operations and Maintenance, Navy (O&M,N) appropriation. The Department of Defense's (DoD) budget for FY 2000 was approximately \$292 billion, and represented over 15 percent of the nation's annual budget. Of this amount, the Navy's O&M, N account was \$23.3 billion and the FHP represented over \$3.2 billion of that appropriation [Ref. 2]. Forty eight percent of the FHP is allocated to the Commander Naval Air Forces Pacific (CNAP), and the majority of the remainder is allocated to the Commander Naval Air Forces Atlantic (CNAL). CNAP and CNAL are the two active duty Air Type Commanders (TYCOMS). The FHP resources they receive pay for flight operations and maintenance costs for aircraft.

Despite the last four years of increased defense spending, the FHP, like many programs in DoD, has faced stringent budgets and limited resources, corresponding to an overall decline in dollars and tightening top line controls over the last decade. As a result, program managers have faced difficult decisions in budget execution, attempting to satisfy operational requirements with scarce dollars.

B. PURPOSE

The purpose of this study is to analyze the cash management of the Flying Hour Program at Commander Naval Air Forces Pacific for fiscal years 1998, 1999, and 2000. Previous thesis work has explored the variable factors and decisions that occur during budget formulation that explain under-funding of the FHP [Ref. 3]. This study will examine techniques used by managers to execute the FHP budget at CNAP to overcome

documented under-funding. Fiscal decisions and budget execution by CNAP managers will be discussed and their effects on operational fleet readiness explored.

The following research questions are addressed in the body of the thesis:

1. Primary Research Question

What methods and procedures have been used to execute CNAP's annual FHP budget to overcome under-funding?

2. Secondary Research Questions

- In what ways have fiscal decisions and budget execution techniques used by CNAP managers affected operational units?
- How do contingencies affect budget execution?
- What effect has reprogramming had on FHP execution?
- What implication for the Department of the Navy does CNAP FHP budgeting methodology present?

C. SCOPE AND METHODOLOGY

The primary source of information used in developing this thesis was through personal interviews with various past and present staff members at the Headquarters of Commander, Naval Air Forces Pacific Fleet in San Diego, California. These included managers from the offices of the Comptroller and Aviation Flight Hour Operations. Additional information was collected through telephone interviews and email with staff at various branches in the office of the Fleet Marine Force, Pacific and Assistant Chief of Naval Operations for Air Warfare.

The remainder of data was collected through the review of numerous publications on all aspects of the Navy Flying Hour Program and Budget Execution including: Flying Hour Cost Reports, Operation Plan 20s (primary FHP budget exhibits), POM issue papers, Center for Naval Analyses studies, Navy and other government reports, Navy

instructions, Naval Postgraduate School theses, and other related research papers and articles.

D. ORGANIZATION OF STUDY

This thesis is divided into five chapters.

Chapter I provides an introduction, where the background, purpose, scope and methodology are explained.

Chapter II provides a framework for this thesis and explains some of the challenges of budget execution. The use of ex ante and ex post controls on budget execution is explained.

Chapter III contains an overview of the FHP budget at CNAP and is derived almost exclusively from a previous Naval Postgraduate School thesis conducted by Keating and Paulk. [Ref. 3]. Funding sources, terms, components of FHP, organizations, and controls on the budget are described.

Chapter IV is an analysis of FHP budget execution at CNAP for fiscal years 1998, 1999, and 2000. Overall budget execution trends will be discussed.

Chapter V summarizes the data presented and provides possible solutions to problems identified.

II. CHALLENGES OF BUDGET EXECUTION

A. BUDGET EXECUTION

In its instructions to federal agencies on budget execution contained in OMB Circular A-34, the Office of Management and Budget describes the budget execution process as follows:

The budget execution process encompasses the apportionment of funds, the obligation of those funds over the course of a fiscal year, and the actual outlay of funds. Prior to the fiscal year, or within 30 days after a spending bill is approved, you must submit an apportionment request to OMB for each account. At the beginning of the fiscal year, or at such other times as necessary, OMB apportions funds – that is OMB specifies the amount of funds that you may use by time period, program, project or activity – from the funds appropriated to you for that fiscal year. Throughout the year, you carry out various programs, projects, and activities. These actions use up the available funds by obligating the Federal government to make outlays, immediate or in the future [Ref. 4:p. xii].

Thus, the point of impact of governmental budgeting is budget execution. “While the act of budgeting is a planning process, budget execution is a management process” [Ref. 5:p. 233]. Much has been written and conjectured about budget development, but little attention is paid to budget execution. Pitsvada notes the fundamental importance of budget execution and calls for more attention to it. “It is, after all, the entire reason that agencies prepare and justify budgets and Congress enacts them” [Ref. 6: p. 100].

The reason for the lack of research in budget execution is that it is removed from the high profile of public policy and budget development debates. The budget manager plods along day after day responding to contingencies and other events, attempting to execute his program in the most efficient and responsible manner.

However the ordinary routines of budget execution are usually carried out far from the spotlight of public attention and the day to day crises that make up much of the daily lives of account administrators and program managers are slowly buried under an accumulating mass of detail as the fiscal year rolls on [Ref. 5:p. 234].

Another reason for the lack of research in budget execution is the diversity and complexity of budgets themselves.

Budget execution remains the most neglected area of budget research and this paucity of research has existed for many decades, probably because budget execution is such a diverse complicated field that is filled with complex details [Ref. 6:p.84, 100].

B. DOD OPERATIONS AND MAINTENANCE (O&M) ACCOUNT

The daily operating routine of DOD is financed through the O&M appropriation. This account is an extremely important one that provides the material and training to safely and efficiently operate ships, aircraft, tanks and guns. The current operational readiness of the U.S. military is dependent on the viability of the O&M account. This account is often the target for budget cuts in order to fund other programs.

The DOD Operations and Maintenance account is analogous to the supporting expense category in most other budgets; it funds everything from bombs to bullets, steaming hours to flying hours, yellow tablets to yellow paint. It does not fund military personnel, weapons systems procurement or research and development. This account is closely watched, for it is a major contributor to training and readiness and to the ability of DOD to go places and do things. It is also closely watched when new missions emerge or budget reductions are necessary. To assume a new, unbudgeted, mission in the national interest within a fiscal year often means finding money in the O&M accounts and spending it, with the reimbursement coming later. When quick budget reductions are needed, the O&M account is often the first target, because it is usually spent out in one year and a dollar reduction means a dollar saving in the particular year, whereas the ship procurement account may require \$20 of reductions to get one dollar of reduction in the current year because ship construction is a multiple year account. In sum, the O&M account, which averages over 35 percent of the DOD appropriation, is a sensitive and important account which funds much of the daily business of DOD [Ref. 5:p. 239].

Additionally, McCaffery and Mutty point out, "The O&M account is not a neat and orderly world. Prices and inflation rates change; commodity prices fluctuate; operating tempos change from what was anticipated and fund managers must adjust to these changes" [Ref. 5:p. 244]. In fact, what DOD managers experience in budget execution can be and often is far displaced from what budget planners anticipated during budget formulation. The disconnect between budget formulation and budget execution makes it difficult for managers to effectively carry out the intended goals of their programs.

The very nature of what the O&M account provides--combat ready forces responding on demand--makes O&M budget managers' jobs challenging. Increased levels of operations caused by national crises or responses to other countries' actions cause additional spending that is difficult to forecast. Other challenges face the budget manager in properly performing his management role of matching resources to requirements. In budget execution several different aspects of the process tend to impede or hinder the manager from smoothly implementing his program and achieving its goals. The next section discusses some of the problems in the execution process.

C. INHERENT PROBLEMS IN BUDGET EXECUTION

1. Taxes (Administrative)

Superior headquarters in the chain of command impose administrative taxes, also known by fleet units as "withholds," in order to have some reserve available should the need arise. Withholds may also be used to fund a special project or program that has not been sufficiently funded to satisfy an individual senior commander. The program manager must determine how to overcome the associated reduction of funds. The program may have originally been properly funded, but subsequent to taxation, the

manager is forced to prioritize requirements in dealing with the loss of funding. Even if the resources are restored at a later date, the manager must still make it through the current period without the money until it is returned. The tax is imposed after the budget was developed, and thus, the manager must administer the program with less money than is required.

2. Timeliness

When Congress does not pass authorization and appropriation bills by the start of the fiscal year, spending is initially restricted to the previous year's level. If more money is needed than last year, a backlog of requirements is created that cannot be resourced until later in the execution cycle. More dollars must be spent to effect short-term fixes just to survive until needed money does arrive. In a similar manner, managers may be required to execute part of the budget when the funding for that portion of the budget may not come until later in the fiscal year. The manager must become creative in figuring ways to execute what is expected, in order to meet current requirements. "Whenever funding is not received when it is anticipated, budget execution is affected"

[Ref. 5:p. 248].

3. Spending Rates and Management Information Systems

It is often difficult for a fund manager to know exactly how much has been spent because of the enormity of the budget and the numerous entities that spend parts of the budget. This is especially difficult for managers who have large numbers of reporting organizations spending funds, each with varying demands. Although plans are usually in place for the allocation of specific amounts to different units, unforeseen adjustments to spending rates routinely occur. Some reporting units may under-execute their budget while others over-execute. The manager must distribute and monitor his account to

ensure that money is available to each of his reporting units despite the ebb and flow in various units' operations. Operational units working around the clock in distant locations exacerbate the difficulty in pinpointing amounts spent.

Despite efforts to closely track expenditures, information systems are only as good as the transmitted data. It becomes a guessing game for the manager to know whether a particular organization will fully execute its program by the end of each reporting period. What the overall manager sees is that expenditure rates on his information reporting system usually lag actual expenditures. When this occurs across hundreds of commands, the ability to know how much has been spent is greatly hindered.

4. Color of Money

The Operations and Maintenance appropriation has a one year life cycle and finances the cost of ongoing operations. "The restrictions on appropriations effectively create legal boundaries that put the budget manager in a budgetary box with walls that are difficult to breach. The ability of a fund manager to move money from one box to another is normally beyond the control of the funds administrator" [Ref. 5:p. 249]. Once money is depleted from one box, no additional expenditures of that color of money can occur. Different fund codes exist to ensure that the intent of Congress is being fulfilled.

5. Flexibility

"Flexibility in the budget execution process means the ability to make adjustments within the resources that have been allocated. As with discretionary dollars, the higher the level of management, the greater the degree of flexibility" [Ref. 5:p. 251]. Reprogramming allows funds to be shifted from one purpose to another within the same appropriation giving managers added flexibility. In general, program managers have

limited amounts of flexibility that they are allowed to exercise in the performance of their duties. Managers must deal with the conflicting ideals of budget flexibility and budget control.

D. BUDGET CONTROLS

A control is a measure to provide reasonable assurance that programs will achieve their intended results. A rudimentary example of a control is a master's leash on a dog. Ideally, neither master nor dog is struggling against the other and neither even realizes that the leash is in place. Although this illustration is simple, the subject of administrative controls becomes complex and is of much importance. "Administrative (budget) controls refer to the normal events of budget execution as they are experienced in the daily lives of most administrators and have to do with executing and adjusting the budget plan that was developed and refined in the executive branch and reviewed and approved in the legislative branch" [Ref. 5:p. 238]

As explained by Jones and Thompson, the crafting and use of control systems requires careful consideration.

The design and implementation of control systems is a ubiquitous problem. It is encountered by engineers, planners, and regulators as well as management controllers. The purposes of various kinds of control systems differ, as do the details of their execution, but all control systems designers face the same key choices: what, where, when, and, in the case of human systems, whom to control. The choice of what and where to control is reasonably self-evident. Management control should be primarily addressed to the behavior of service suppliers (that is, the military departments and defense agencies, other departments of government such as the General Services Administration, and contractors), the efficiency with which they produce goods and services, and ultimately the efficiency with which they use the assets at their disposal [Ref. 7:p. 156].

Too much control and controls of the wrong kind impede program efficiency. With the size of the federal budget, small percentage errors by budget managers equate to large dollar errors. Therefore, controls that ensure fiscal propriety contain powerful practical value. However, proper controls should not hinder the manager's ability to effectively execute the budget. Controls do not come without a price. "Controls contribute nothing of positive value; their singular purpose lies in helping us avoid waste. To the extent that they do what they are supposed to do, they can generate substantial savings. But it must be recognized that controls are themselves very costly" [Ref. 7:p. 182].

One of the best-known controls in U.S. government budget execution is Title 31 Section 1517, better known as the Anti-deficiency Act (ADA).

The Anti-deficiency Act consists of provisions of law that were passed by Congress (beginning in the nineteenth century and later incorporated into Title 31 of the United States Code) to prevent departments and agencies from spending their entire appropriations during the first few months of the year. ...Under the Act, if you obligate or expend more than the amount in the appropriation or fund or the amount apportioned or any other subdivision of funds, you shall be subject to appropriate administrative discipline, including – when circumstances warrant – a written reprimand, suspension from duty without pay, or removal from office. In addition, if you are convicted of willfully and knowingly over-obligating or overspending the amount, then you shall be fined not more than \$5,000, imprisoned for not more than 2 years, or both [Ref. 4:p. 132].

The consequences and stigma associated with potential ADA violations loom large for defense budget managers as they execute their budgets. They are constantly aware of its repercussions and diligently strive to avoid violations.

1. EX ANTE CONTROLS

Budget control can be imposed before-the-fact, (ex ante) controls, or after-the-fact, (ex post) controls. “Before-the-fact controls are intended to prevent subjects from doing undesirable things or to compel them to do desirable things and necessarily take the form of authoritative mandates, rules, or regulations that specify what the subject must do, may do, or must not do” [Ref. 8:p. 552]. “The logic of ex ante control is that constraining managerial discretion is the first purpose of budget execution . . . Some examples of ex ante controls include object-of-expenditure appropriations, apportionments, targets, position controls, and fund and account controls that regulate spending by account and the kind of assets that can be acquired by governmental departments and agencies” [Ref. 9:p. 578]. The constraining nature of before-the-fact controls leads Thompson to recommend “that controllers should resort to before-the-fact control designs only where the cost and production behavior of the good or service in question makes their use the least objectionable alternative available” [Ref. 8:p. 555].

2. EX POST CONTROLS

“The logic of ex post control is that the purpose of the budget is to establish performance targets that are high enough to elicit from the organization’s managers their best efforts” [Ref. 7:p. 578]. After-the-fact controls are designed to motivate subjects to make good decisions. “Examples are those controls imposed as a result of audit findings, program evaluation, or policy analysis” [Ref. 9:p. 577]. Johansen, Jones and Thompson further explain ex post controls on budgets.

Under this approach to budget control, the structure of authority and responsibility within the organization is of interest to the financial controller. The effectiveness of this design depends on the elaboration of well-defined objectives, accurate and timely reporting of performance in

terms of objectives, and careful matching of spending authority and responsibility. Its effectiveness also depends upon the clarity with which individual reward schedules are communicated to responsibility center managers and the degree of competition between alternative management teams. Finally, under this approach, the financial liability of government depends on the costs incurred in providing the service and not merely on the quantity or quality of the service provided [Ref. 9:p. 578].

The use and structure then of ex post controls clearly require detailed thought and analysis of the program budget to be controlled.

E. MATCHING CONTROLS TO PROGRAMS

"Budget execution control system design should fit the objectives of control and the nature of the entity to be controlled" [Ref. 9:p. 576]. Jones and Thompson explain that controls on budget execution ought to be tailored to the type of good produced.

Most management control theorists believe that where consequences (that is, an organization or responsibility center's outputs) are easily monitored, control should focus on the consequences of the subject's decisions; where they are not, control should focus on their content (inputs). Because consequences are easily monitored where entities produce homogeneous outputs or where a responsibility center within an entity performs fungible activities, it follows that controllers should rely on after-the-fact controls where homogenous outputs are supplied. In contrast, it follows that they should rely on before-the-fact controls where each item supplied is, from the "customer's" perspective, intrinsically unique. Furthermore, this view has been reinforced by recent findings in transaction-cost economics and agency theory [Ref. 7:p. 163].

When budget controls are not properly matched to budget purpose, inefficiencies are rampant. For example, if budget control excessively limits prudent amounts to be expended on valid requirements in legitimate periods, the budget manager may be required in execution to start and stop budget expenditures contingent on amounts of money available at any one time. Additionally he may be forced to likewise place restrictions and limits on subordinate executers in accomplishing routine operations.

Based on the findings of Jones and Thompson, there is “not a perfect match between the control strategies used by the Department of Defense and the cost behavior of the goods and services it produces and acquires” [Ref. 7:p. 191]. The tendency in many organizations is a reliance on before-the-fact controls, restricting efficiency and increasing costs in budget execution.

The next chapter contains an overview of the Flying Hour Program (FHP) at Commander Naval Air Forces Pacific. Funding sources, terms, components of the FHP, and associated organizations are described.

III. THE FLYING HOUR PROGRAM (FHP) AT CNAP

A. INTRODUCTION

The Flying Hour Program (FHP) is the vehicle by which the Department of the Navy (DoN) budgets and allocates annual funding for the operation and maintenance of all Navy and Marine Corps aircraft. Fleet Commanders and Resource Sponsors use the FHP to construct defensible budget exhibits that justify the resources required to attain aviation mission readiness goals for combat, support, and training aircraft. Attainment of aviation readiness goals contributes to the successful execution of the National Military Strategy [Ref. 3:p.11].

B. FHP FUNDING COMPOSITION

FHP funding composition comes from the O&M, N appropriation account which is divided into budget activities. Figure 3.1 shows the full FHP funding composition. The FHP is a part of the “Operating Forces” (BA1) budget activity. Operating Forces are subdivided by Activity Groups (AGs) and Sub-activity Groups (SAGs). AGs and SAGs are codes, which reflect the activity and functional areas responsible for administering the FHP. Flying Hour Program AGs are “Air Operations” (1A00), and “Combat and Operations/Support” (1C00). Over 90 percent of the FHP resources fall under the Air Operations AG.

FHP funding is divided into two major areas corresponding to the SAGs. These are Aircraft Flight Operations (AFO) and Aircraft Operations Maintenance (AOM). The squadrons receive AFO funding, known as Operational Target Functional Category (OFC-01) or “01 OPTAR”. The 01 OPTAR (AFO) is comprised of two fund codes, 7B

(fuel) and 7F (flight equipment). Air stations, which support the squadrons, receive AOM funding, known as OFC-50, referred to as an “Operating Budget”. An air station’s OFC-50 (AOM) account consists of Aviation Fleet Maintenance (AFM) – fund code 7L (consumables), and Aviation Depot Level Repairables (AVDLRs) – fund code 9S (repairables). Aircraft carriers (CVs) and other air platform ships (LPH and LHA) receive AOM (OFC-50) funding when the air wing and squadrons are embarked [Ref. 3:p. 24].

C. FHP CHAIN OF COMMAND

The dynamic environment of the FHP requires the participation of multiple Navy, Marine Corps, and DoD organizations. Two main functional chains of command exist to oversee the operation and financing of the FHP. The operational chain, (depicted in Figure 3.2 for the Pacific Fleet), gives direction for the daily mission tasking for all Navy and Marine Corps aircraft. This chain illustrates the flow of authority from the President to the squadron commander. Organizations within the operational chain provide input for consideration in budget formulation, but have a minimal role in formal budget development. The financial chain, depicted in Figure 3.3, illustrates the flow of the FHP budget process [Ref. 3:p. 26].

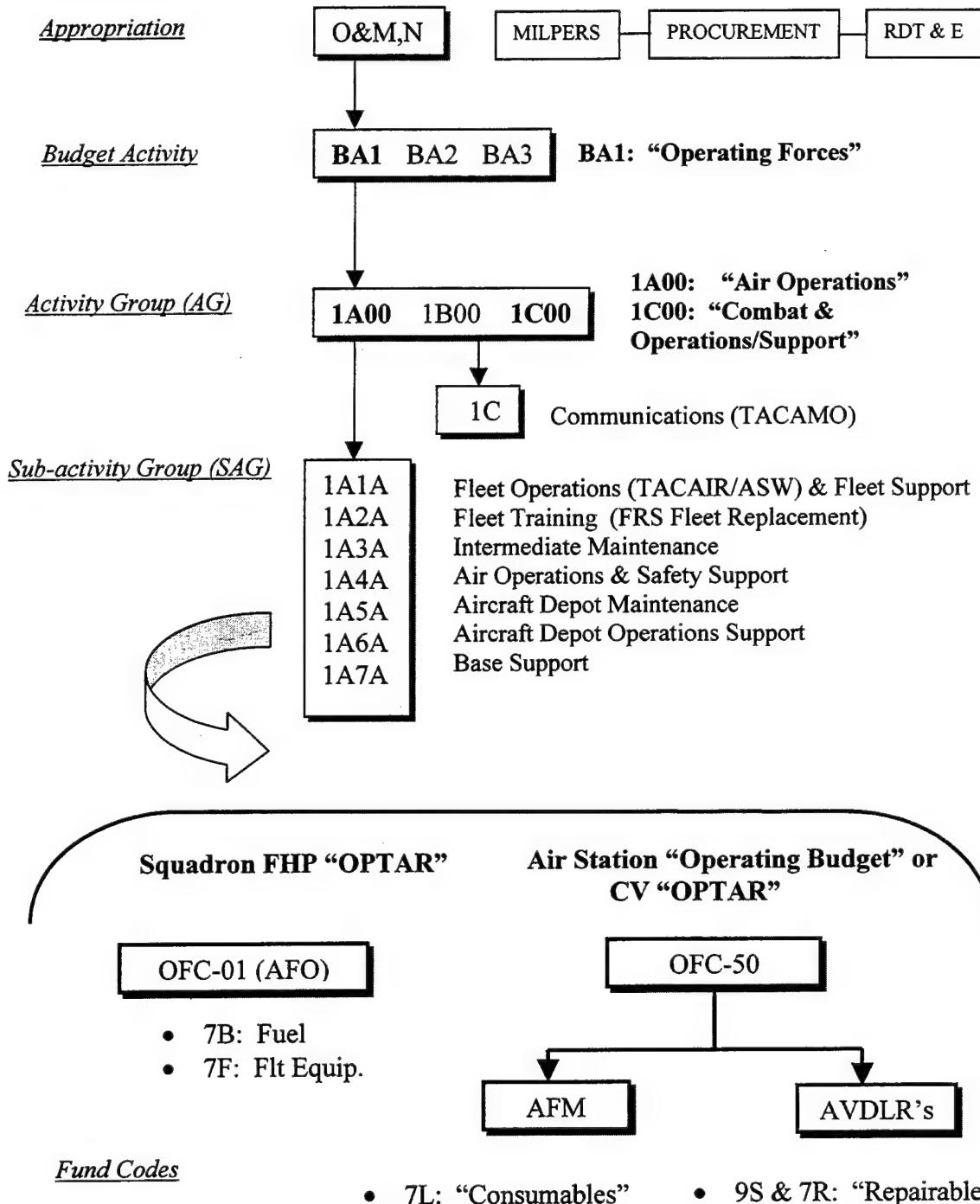


Figure 3.1. FHP Funding Composition.

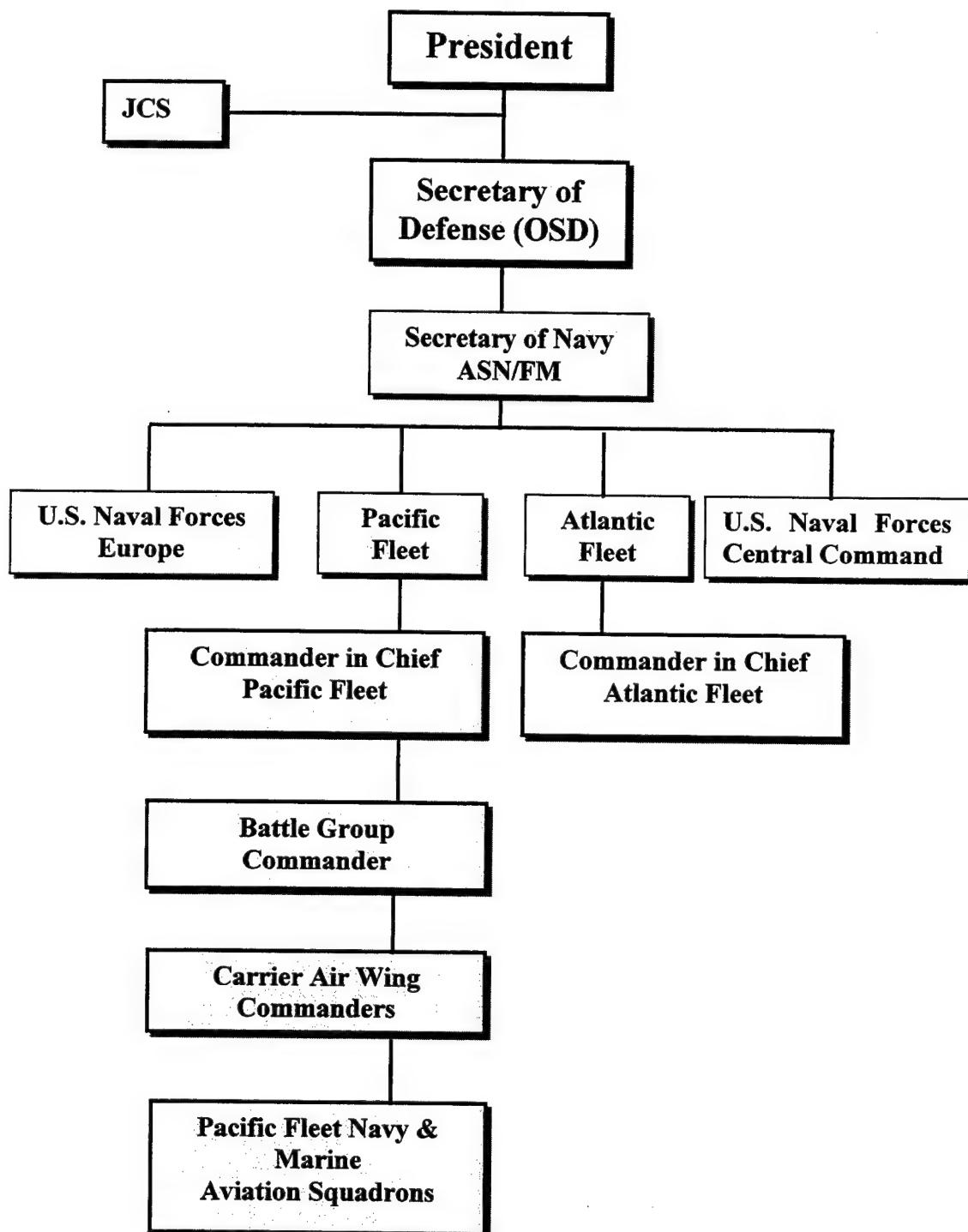


Figure 3.2. Pacific Fleet FHP Operational Chain of Command.

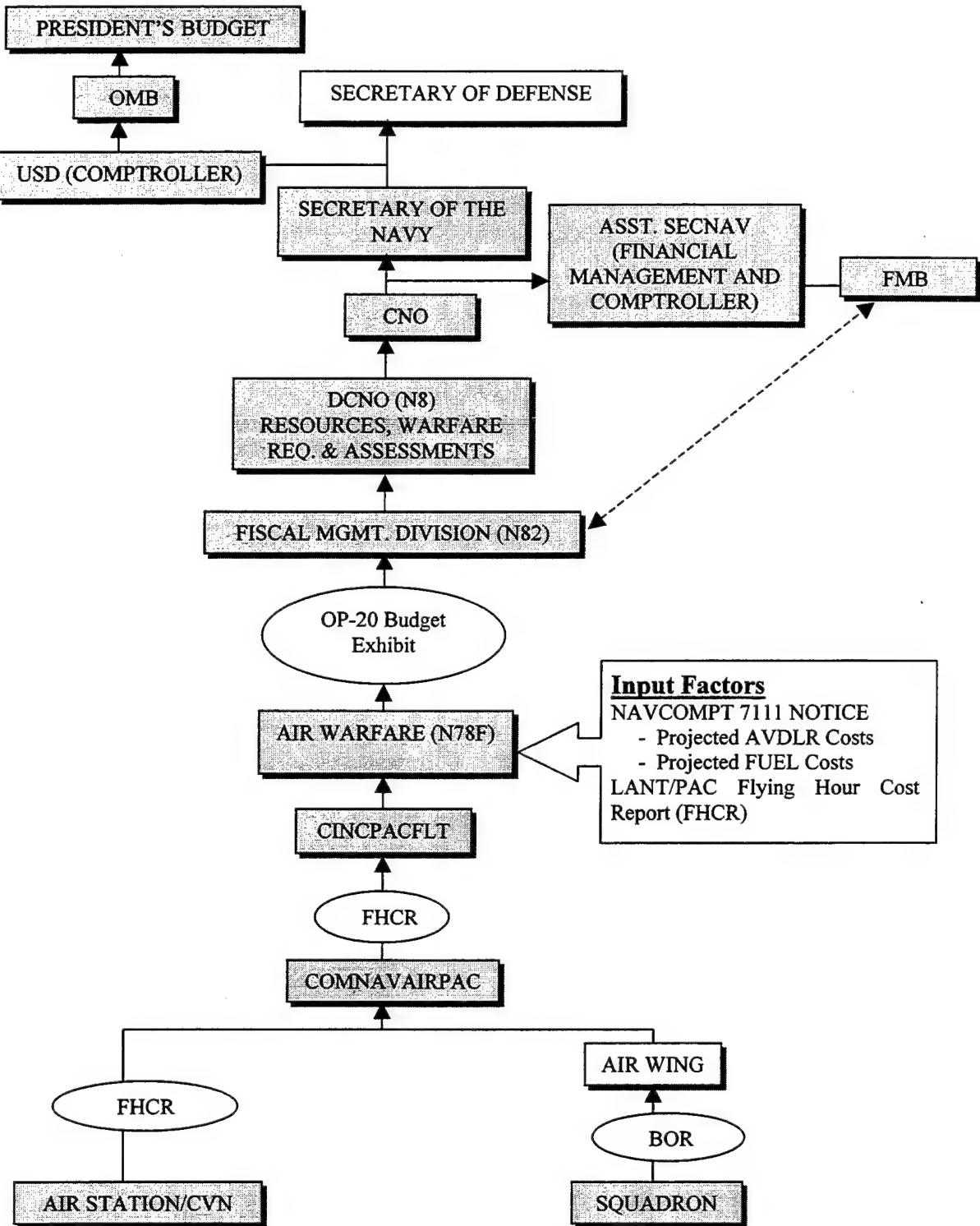


Figure 3.3. FHP Financial Organization and Budget Inputs.

D. FHP BUDGET PHASES

1. Budget Formulation

During budget formulation resources required for operating and maintaining the fleet's aircraft are requested. The Assistant Chief of Naval Operations (CNO) for Air Warfare (N-78) assembles budget exhibits designed to justify specific levels of funding required for each aircraft type. The primary FHP budget exhibit is the Operational Plan 20, (OP-20). The N-78 staff constructs the necessary FHP budget exhibits and works closely throughout the year with the Major Claimants such as Commander in Chief Pacific Fleet (CINCPACFLT) and Air Type Commanders (TYCOMs) such as Commander Naval Air Forces Pacific (CNAP) in receiving the necessary budget inputs required for assembling and justifying the annual budget funding requirements. Figure 3.3 displays these budget inputs in relation to the financial organization. The three input mechanisms used at the squadron, air station, and N-78F levels are the Budget OPTAR Report (BOR), the Flight Hour Cost Report (FHCR), and the Operation Plan 20 FHP budget exhibit [Ref. 3:p. 29].

The BOR and the FHCR are the primary financial management inputs used at CNAP to administer and track FHP obligations during the fiscal year. These reports collectively form the data used by N-78F to build new OP-20 budget exhibits. The BOR categorizes obligations by aircraft type and includes the following [Ref. 10:p. 12.3.7]:

- Obligation totals by fund code for OFC-01 and OFC-50 for that month
- Total gallons and type of fuel (e.g., JP-4/5) consumed for the month and fiscal year to date (FYTD)
- Flight hours flown for the month and FYTD
- Number of aircraft assigned by Type/Model/Series (T/M/S) and Type Equipment Code (TEC)
- Remaining OPTAR grant balance for the squadron

During budget execution, FHP costs are reported in the Flying Hour Cost Reports (FHCR) by the Air TYCOMs. Source data for FHCRs are the Budget OPTAR Reports (BORs), transmitted from squadrons and air stations that fall under the cognizance of the Air TYCOM. FHCRs are transmitted electronically from the TYCOMs to N-78F and FMB on a monthly basis. FHCR data are entered into the Flying Hour Projection System (FHPS) and serve as the primary budget input to develop OP-20 budget exhibits [Ref. 11:p. 10-7]. The report depicts the cost per hour and total obligations to date for each of the three direct cost components (fuel, maintenance and AVDLR), by program element, and type/model/series (T/M/S) of aircraft.

The OP-20 is the main budget execution document produced from the N-78F Flying Hour Projection System (FHPS) that relates annual budgeted flying hours to forecasted flying hour costs. The OP-20 is broken down by FHP schedule, program element, and T/M/S which reflect the flying hours and budgeted cost per hour (CPH) for each of the cost components. During budget formulation, the OP-20 serves as guidance for the Major Claimants and TYCOMs annual authorized flying hours that may be flown by each T/M/S aircraft, and the top-line funding allocation for the execution year. The Major Claimants and Air TYCOMs use the OP-20 as a guide in preparing their respective budgets and check if the funding and hours provided meet their requirements. Once approved via the budget process, the OP-20 becomes the primary resource allocation document for the TYCOMs to execute their respective Flying Hour Programs [Ref. 3:p.61].

2. Resource Allocation and Execution

Resource allocation includes the decisions on and analysis of the distribution of funds from Congress down the chain of command to squadron commanders. Execution is the spending of congressionally provided funds. Following Congressional budget approval and Presidential signature, the Treasury Department issues an Appropriation Warrant to the Office of Management and Budget (OMB). OMB then apportions funds via the DoD Comptroller to the Office of the Assistant Secretary of the Navy Financial Management and Comptroller (ASN (FM&C)), specifically the Office of Budget (FMB), who allocates funds to the major claimants. FHP funding is released quarterly from FMB to CINCPACFLT, and on to CNAP, and finally to the air stations and squadron commanders [Ref. 3:p. 31].

E. THE FHP BUDGETING PLAYERS

This section explains the budgeting and execution actions performed by the organizations in the FHP financial chain of command, beginning at the aviation squadrons, through the CINCPACFLT level. Understanding of how FHP funds are allocated and executed at the user levels provides a better understanding of all FHP budget actions.

1. Squadron Level and Air Station/CV

a. *Funding Allocation – Squadron*

Navy Operations and Maintenance, (O&M, N) funding for the FHP is made available annually but is provided to the fleet quarterly. Beginning with the new fiscal year on October 1st, each Navy and Marine squadron and their supporting air station or ship, if deployed, receives one quarter's worth of flight operation funding from CNAP. These quarterly funds are called Operational Target Functional Categories

(OFCs) or commonly known as Operating Targets (OPTARS). An OPTAR represents the anticipated funding level necessary to support the costs of a squadron's flight operations. Receipt of the OPTAR gives the squadron authorization to place obligations against CNAP's FHP funds up to the amount of the issued OPTAR grant [Ref. 3:p. 32].

The squadron OPTAR is comprised of two cost expense accounts, Aircraft Flight Operations (AFO or OFC-01) and Aircraft Operations Maintenance (AOM or OFC-50). The OFC-01 and OFC-50 accounts are designed to indicate how FHP funds are spent and record the type of materials purchased.

- (OFC-01) Aircraft Flight Operations (AFO). OFC-01 funding provides for petroleum, oil and lubricants (POL) used during flight operations and any required flight equipment used in the operation of the aircraft. These funds are accounted for under the 7B (fuel) and 7F (Administrative and flight equipment) fund codes.
- (OFC-50) Aircraft Operations Maintenance (AOM). The AOM account is broken down into Aviation Depot Level Repairable (AVDLR) and Aviation Fleet Maintenance (AFM).
- Aviation Depot Level Repairable (AVDLR). AVDLRs are repairable aircraft components or assemblies. These components are generally high cost and require long procurement lead times. Due to their high cost, significant savings can be achieved by repairing them as opposed to discarding these items when they fail or break [Ref. 12]. AVDLRs are typically repaired at the Depot Level when the item is determined to be Beyond the Capability of Maintenance (BCM) of the Intermediate Maintenance Activity (IMA). AVDLRs represent the largest portion of funding within the FHP budget. AVDLRs are financed under the Navy Working Capital Fund (NWCF) system. Under this system, squadron OFC-50 accounts finance the depot level repair and procurement of these repairable components. Charges are incurred if components are ordered during AVDLR repair at the IMA and if the AVDLR must be sent "off-station" for depot level repair. Thus, the supporting IMA and air station retain control of AVDLR funds and associated accounting responsibilities [Ref. 10:p. 12.3.7].
- AFM. The AFM portion of the squadron's OFC-50 (AOM) account is typically spent on "consumables" - inexpensive parts used in support of flight operations such as paint, wiping rags, towel service, cleaning agents, compounds used in the corrosion control of aircraft, and consumable

repair parts [Ref. 10:p. 12.3.7]. When combined with the consumable maintenance costs incurred at Intermediate maintenance levels (I-Level), these costs comprise the Maintenance (MNT) category.

- **“Special Interest Category” Funding Other (FO)**. Although not specifically a squadron expense, FO category is included here to indicate the overall relative costs of the FHP as shown in Figure 3.4. FO costs are not included in the OP-20. These “other” costs represents outlays for flight simulator operations, civilian labor, administrative supplies, material, equipment, maintenance service contracts, and expense for travel and lodging associated with pilot and crew Temporary Additional Duty (TAD). Most of these costs are considered an integral part of the cost for Naval Aviation, but there are no FHP resources programmed by N-78F for FO. However, FO costs are incorporated in the major claimants’ regular budget submission. The Air TYCOMs provide input for the development of this budget, based on their forecasted requirements for the FO category of funds [Ref. 3:p. 57].

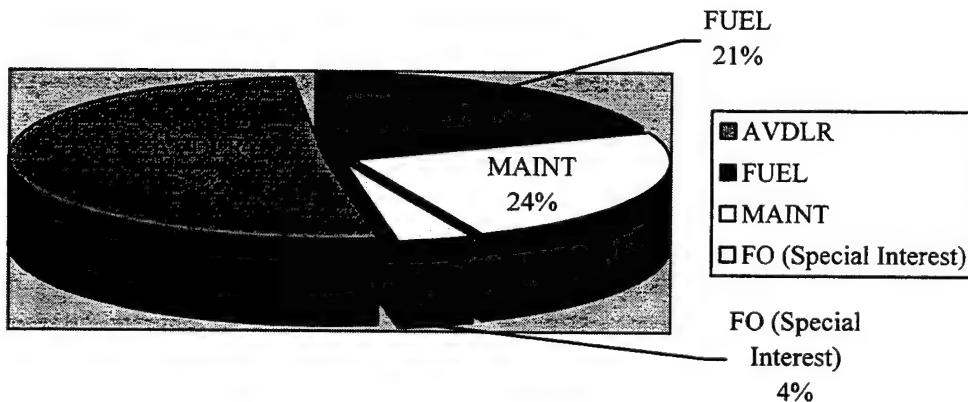


Figure 3.4. FHP Cost Components [Ref. 13].

b. Funding Allocation - Air Station/CV

Supporting air stations also receive a quarterly FHP operating budget from CNAP at the beginning of the each fiscal year. This operating budget is called a “dash 1” (in reference to the document it is received on - NAVCOMPT FORM 2168-1). The “dash 1” provides funding needed to support the repair of AVDLRs for all tenant squadrons. CVs also receive AOM funding when the air wing and squadrons are embarked onboard. However, the ships receive an OPTAR vice an Operating Budget.

This distinction is made because financial management regulations differ between shore-based activities and afloat units [Ref. 3:pp. 34-35].

c. Funding Execution – Squadron

Throughout the fiscal year squadron commanders keep track of all FHP expenses and carefully monitor their OPTAR account to ensure they do not exceed their quarterly FHP OPTAR. The accounting procedures used to obligate FHP funds at the squadron are performed using the Aviation Storekeeper Information Tracking System (ASKIT). ASKIT is a computer program that records and tracks all OPTAR obligations by 7B and 7F fund codes [Ref. 3:p. 35].

If the squadron is unable to obligate all of its OPTAR funds before the end of the fiscal year, these funds are returned to CNAP for reallocation. Squadrons are able to obligate their OFC-01 (fuel) funds by increasing their flight operations, and deplete any remaining OFC-50 (AOM) funds by purchasing needed materials and supplies [Ref. 3:p. 36].

d. Funding Execution - Air Station/CV

Air stations CVs are also required to track and report a record of their monthly OPTAR (OFC-50) expenses to CNAP. Tracking and reporting expenses is the responsibility of the air station IMA and comptroller shop, and is accomplished by submitting FHCRs. FHCRs reflect the amount of all OFC-50 funds obligated by the air station/CV in direct support of each squadron. The FHCR records costs by:

- Type Equipment Code (TEC)
- Organization code – which squadron incurred the obligation
- Obligations by repairable and consumable fund codes
- Posting the remaining OFC-50 balance [Ref. 3:p. 36]

The FHCR is submitted automatically via the Standard Accounting and Reporting System – Field Level (STARS-FL) database. The STARS receives its input from the air station/CV I-level Naval Aviation Logistics Command Management Information System (NALCOMIS) and supply Shipboard Uniform Automated Data Processing System (SUADPS). At the end of each month, after the STARS database summarizes the total obligated funds, CNAP comptroller personnel review the FHCR to monitor all cost, obligation and execution rates for the FHP [Ref. 3:p.36].

2. Carrier Air Wing Commander (CAG) – Allocation/Execution

The carrier air wing commanders (CAGs) play a limited role in FHP allocation and execution. Quarterly OPTAR funding is issued by the controlling CAG to most fleet-going squadrons. For non-deploying squadrons, the OPTAR grant is issued directly by CNAP or by the Type Wing Commander. The CAG's role during allocation and execution is that of monitoring and distributing funds. If a particular squadron within an air wing requires additional funding within the fiscal year, the Air Wing Operations Officer will distribute funds from one squadron to another. Distribution is done to alleviate shortfalls or funding surpluses brought on by unforeseen operating schedules within the Air Wing. If unable to sufficiently redistribute funds within the Air Wing, the CAG will solicit additional funding directly from CNAP [Ref. 3:p. 37].

3. Commander Naval Air Forces Pacific (CNAP)

a. Budget Formulation

Commander, Naval Air Forces Pacific plays an important role in FHP budget formulation by representing the flying hour users' needs and articulating the difficulties to the resource sponsor (N-78) in executing the FHP budget. The CNAP

budget formulation role consists of two activities: 1) collecting and reporting FHP execution data and 2) developing FHP program and budget submissions [Ref. 3:p. 37].

FHP execution data come from the BOR and FHCR that provide the basis for constructing FHP OP-20 budget exhibits. The accuracy of these reports is important to ensure sufficient future FHP funding levels. CNAP monitors and audits BOR and FHCR data on a monthly basis to ensure their accuracy. Then CNAP forwards this information electronically to N-78F where it is collected in the Flying Hour Projection System (FHPS) database [Ref. 14:pp.53 & 57].

b. Funding Allocation and Execution

CNAP is the focal point for allocating, executing and monitoring flight hour funding for all Navy and Marine Corps Pacific fleet squadrons. Their primary goal and responsibility during allocation and execution is to achieve a specific level of readiness for each squadron within the constraints of the resources available. Separate discussions of allocation and execution follow [Ref. 3:p. 41].

(1) Allocation. The allocation of FHP funding begins at the start of the new fiscal year when FMB distributes quarterly allocations of the approved FHP funding to CNAP in the form of an Operating Budget (OB). The FHP OB, in theory, should provide the necessary dollars to execute CNAP's flying mission. With restricted DoD budgets and competing priorities, financial resources are scarce. Thus, the funds requested during budget formulation seldom actually match those required by CNAP to execute the FHP program. Therefore, CNAP's greatest challenge during allocation is to distribute these funds in such a way that will allow squadrons to achieve mission readiness while avoiding over obligation of FHP funds [Ref. 3:p. 41].

CNAP's primary tool for distributing flight hour funds is through the Navy Operational Plan 20 (OP-20). The OP-20 serves as a budgeting formulation document and an execution-monitoring tool. During budgeting, the OP-20 displays funding requirements by aircraft type, model, series (T/M/S) and becomes the Navy's primary budget exhibit displaying the FHP funding requirements during submission and review to OSD and OMB. Once funding is approved, the OP-20 provides local commanders with a means to allocate squadron OPTAR grants by:

- The annual number of flight hours that may be flown by each T/M/S aircraft
- The dollar amounts budgeted for each flight hour by T/M/S
- The total dollar amounts authorized for the three OPTAR cost components (fuel, AVDLR and maintenance).

By using the OP-20, the CNAP FHP manager and comptroller decide how to allocate flight hours to each squadron, air wing, and aircraft-owning activity, taking into account deployment schedules, and training requirements [Ref. 3:p. 42].

In distributing OPTAR funds to squadrons and air stations, the OP-20 serves as a starting point. The Flying Hour Program Division (N01F3) and the Aviation Flight Hour Operations Office (N-3F) share the process of distributing FHP funds. The FHP manager (N01F3) is charged with the overall management of the program, but shares this responsibility with N-3F. N-3F, (also called the FHP Operations Officer (Ops-O)), is responsible for ensuring squadrons are allocated the proper number of flight hours and associated funding levels required to meet CNO's readiness goals for aircraft [Ref. 15]. To determine how many hours to allocate each squadron the CNAP Ops-O uses five documents: 1) Status of Resources and Training System (SORTS)

Report, 2) Required Operational Capability/Projected Operational Environment (ROC/POE) 3) Aviation Training and Readiness Matrix, 4) OP-20, and 5) the Secretary of the Navy's Department of the Navy Consolidated Planning and Programming Guidance (DNCPPG). A short description of these documents follows [Ref. 3:p. 42].

The SORTS manual defines specific mission proficiency requirements necessary to achieve the various combat readiness ("C") ratings, which are reported to the CNO and Joint Chiefs of Staff (JCS). "C" ratings are a percentage measurement of how mission ready a unit is to operate in combat. The ROC/POE delineates combat capabilities and mission areas for each T/M/S expected during wartime. The Training and Readiness Matrix (T & R Matrix) is a detailed Joint CNAP/CNAL instruction that provides guidance by T/M/S, mission, and specific goals for crew competency levels necessary to achieve a particular "C" rating in the SORTS Report. The DNCPPG establishes a measure termed Primary Mission Readiness (PMR) which serves as a subjective means to distribute a limited number of flight hour funds among the various activities. PMR is the number of flight hours required to complete all events scheduled on the T & R Matrix. Completing all events is known as 100 percent PMR. PMR is currently maintained at a Navy wide rate of 83 percent plus 2 percent of the flying hours-performed in aircraft simulators [Ref. 3:p.43].

The first three documents, SORTS, ROC/POE and T & R Matrix are tools used by squadron CO's in determining how to allocate their flying hours. At CNAP, the Ops O takes these documents into consideration but, because of the complexity in trying to balance the requirements of all five documents, he primarily relies on the OP-20 and the 83 percent PMR goal to distribute flight hours by T/M/S. The OP-

20 assists in the allocation of funds to the fleet as it is separated into three schedules to reflect different mission areas. Each T/M/S is funded to a slightly different level of hours and dollar amounts because of differences in operating expenses, e.g., jets versus helicopters. These schedules serve as a rough guideline for flight hour OPTAR distribution throughout the fleet. Schedules are introduced as follows [Ref. 11]:

- Schedule Mission/Definition
 - A TACAIR/ASW – Carrier air wings, Marine air wings, land and sea based units committed to combat operations funded at 83 percent PMR. This category constitutes the bulk of the Navy / Marine Corps aviation warfighting capability, which primarily consists of those squadrons capable of executing the “joint strike” and “crisis response” missions in support of the National Military Strategy. (1A1A fund code)
 - B FLEET AIR TRAINING (FAT) – This category (also referred to as Fleet Replacement Squadrons (FRS)), consists of squadrons that train pilots and navigators prior to joining TACAIR/ASW and Fleet Air Support units. These squadrons are dedicated to training fleet aircrews in each particular type aircraft and funded at 100 percent student throughput. (1A2A fund code)
 - C FLEET AIR SUPPORT (FAS) – The primary mission of these squadrons is to provide direct and indirect support (including logistics) to Navy and Marine Corps fleet operating units and shore installations. Their funding is based on Naval Center for Cost Analyses (NCCA) methodologies and historical execution. Common mission examples include Carrier-on-Board Delivery, and Search and Recovery. (1A1A fund code)

The percentage of FHP resources spent for squadrons within the above schedules is indicated in Figure 3.5.

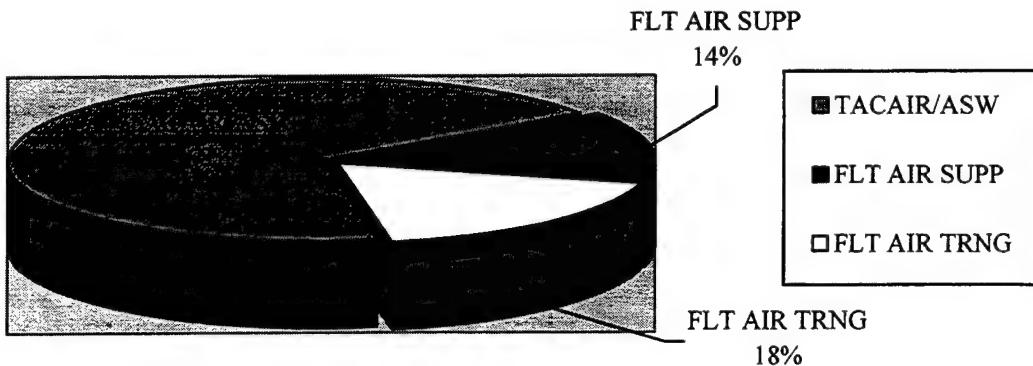


Figure 3.5. FHP Schedule Funding Percentages [Ref. 13].

In conjunction with the OP-20, final distribution of funding to fleet squadrons is calculated by matching squadron flying “activity levels” with the CNO PMR goal of 83 percent. An activity level indicates a phase of employment for a squadron during its 18 month “turn-around deployment cycle.” A turn-around cycle is the eighteen-month period used for scheduling aircraft deployments, along with all the requisite aircraft and air wing training in preparation for deployment. Flight hour requirements vary at each stage of the turn-around cycle. Air wings are typically funded at the levels shown below:

- Month 1: Personnel turnover and leave 40% PMR
- Months 2-6: Turn-around training 65% PMR
- Months 7-10: Turn-around training 75% PMR
- Months 11-16: Pre-deployment training 95% PMR
- Month 17: Pre-deployment Stand down 50% PMR
- Deployment Month 1: 70% PMR
- Deployment Months 2-5: 115% PMR
- Deployment Month 6: 60% PMR

Using the 83 percent PMR goal as guidance, the CNAP Ops-O uses the OP-20 schedule and builds quarterly master flight hour execution plans for each air wing once CINCPACFLT passes the “controls” (fiscal FHP dollar limits) to CNAP. The objective is to attain an overall PMR goal of 83 percent while ensuring squadrons receive necessary funding to fly enough flight hours to meet training requirements. As illustrated in Figure 3.6, the level of funding and flight hours required varies from the 83 percent PMR baseline depending on squadron location within the turnaround cycle. In the aggregate, an 83 percent PMR level is achieved. In addition to achieving the 83 percent PMR goal, the Ops-O and FHP managers must avoid any over obligation of FHP funds and a resulting 1517 Anti-deficiency Act violation [Ref. 3:p. 45].

Following endorsement by the air wing commander, the flight hour execution plan is approved at CNAP and the Flight Hour Manager’s staff distributes the quarterly OPTAR grants to the air wings, squadrons and air stations by naval message. Receipt of this message provides authority for activities to obligate FHP funds.

(2) Execution. CNAP’s monitoring role in FHP execution is to track and review squadron and air station obligations. CNAP does this through the FHCR and BOR costing information reports. These reports serve to:

- Prevent over expenditure of allocated funds
- Ensure funds are used for approved purposes only
- Compare squadron, air wing and air station readiness training and support activities to current on-hand FHP funds
- Identify excess funds for redistribution to other units
- Measure ship/station/squadron budget execution performance
- Support and provide justification for subsequent fiscal year budget inputs and decisions
- Prepare required FHP management control reports [Ref. 3:p. 46]

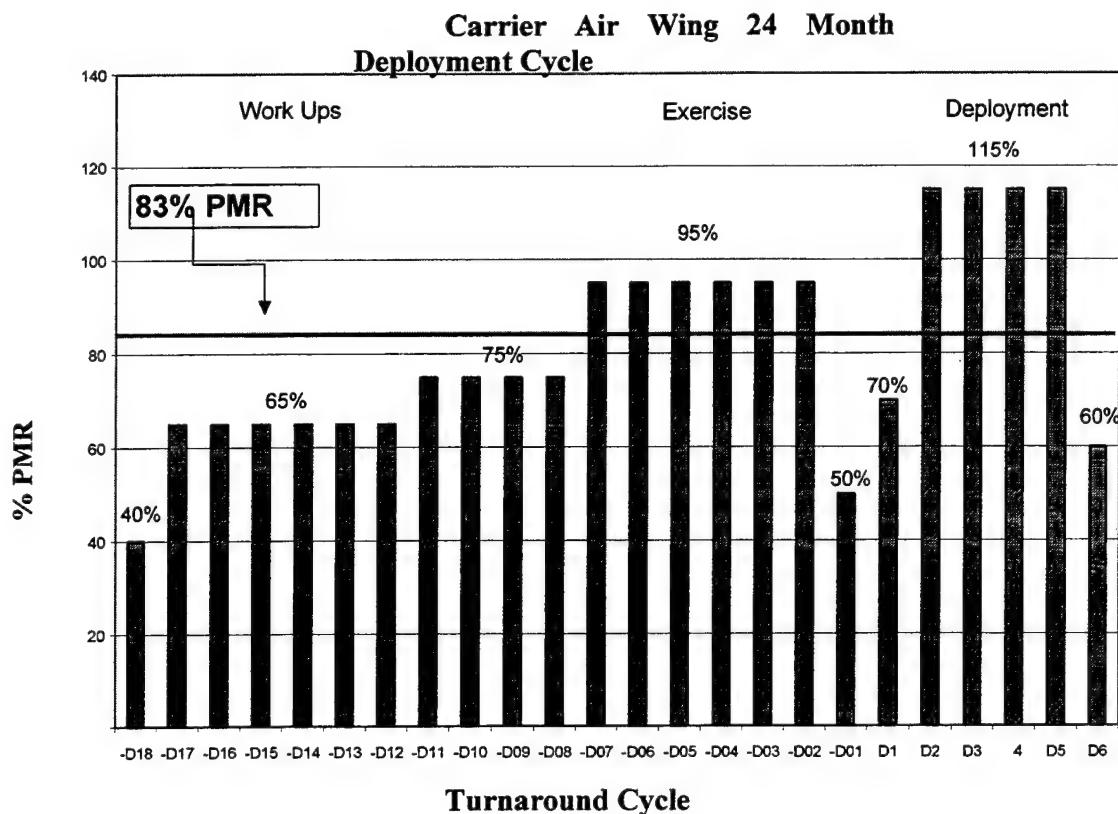


Figure 3.6 CNAP 24 Month Carrier Air Wing Deployment Cycle [Ref. 13].

The FHCRs and BORs provide a feedback mechanism to CNAP on the status of funds for each unit, as well as a check and balance to prevent over obligation or inappropriate obligations of funds. The FHCR delineates fiscal year to date information on the amount of flight hours flown and the obligations for fuel, maintenance and AVDLR expenses. The CNAP FHP Manager monitors FHCR and BOR inputs against the OP-20 cost per hour guidance to detect any anomalies. When funding shortfalls occur, the FHP Manager reallocates funds between the squadrons and the air stations, or requests additional funding from CINCPACFLT and N-78 [Ref. 3:p. 46].

Overseeing the distribution of flight hour funds within CINCPACFLT requires a tremendous management effort between the squadrons, air stations, air wing commanders, and the resource sponsor. At any given time, FHP

managers are monitoring the execution of five air wings, a dozen air stations, and over 100 squadrons. The final objective is to spread the limited FHP funding across all activities while achieving mission readiness goals and to ensure the proper execution of all allocated funds by the end of the fiscal year [Ref. 3:p. 47].

The Marine aviation organizations that fall under CNAP's purview for budgeting and funding purposes are the 1st and 3rd Marine Air Wings (MAWS). Operationally these two MAWS report to the Commanding General, Fleet Marine Forces Pacific (FMFPAC). FMFPAC FHP managers track Marine aviation squadron expenditures and work closely with CNAP in monitoring and reporting Marine Corps FHP execution. CNAP and FMFPAC attempt to develop coordinated execution strategies, but divergent requirements between the Navy and Marine Corps sometimes make that difficult. Budget execution strategies will be discussed in depth in the next chapter.

4. Commander in Chief United States Pacific Fleet (CINCPACFLT)

The primary function of CINCPACFLT as the major claimant is to act as an interface between CNAP, FMB and the resource sponsor, N-78F. These responsibilities and functions are grouped into two areas: budget formulation, and budget allocation and execution. A discussion of these functions and responsibilities follows [Ref. 3:p. 47].

a. *Budget Formulation*

During FHP budget formulation, CINCPACFLT receives three input documents: FHP fiscal control limits, the budget policy and formulation guidance, both from the FMB analyst, and a copy of the proposed OP-20 FHP budget exhibit as developed by N-78F. Since CNAP primarily oversees the day-to-day execution of the FHP, CINCPACFLT budget personnel forward these documents to CNAP. The CNAP

staff validates these documents against the control limits and the OP-20 to ensure sufficient funds are available to execute the FHP. Using the Aviation Cost Evaluation System (ACES), CNAP compares proposed OP-20 budget documents from one year to the next to determine if changes between the two years are executable. Analysis is done by matching the flight hours to the control amounts. If funding shortages are identified, CNAP can reprogram funds and flight hours within the overall allocation limit or request additional FHP funding from CINCPACFLT [Ref. 3:p. 48].

b. Budget Allocation & Execution

CINCPACFLT responsibilities in the allocation and execution phase of the FHP can result in significant decisions that directly impact the successful execution of the FHP. The CINCPACTFLT Execution Branch distributes quarterly FHP funding to CNAP as received from FMB. However, before these funds are allocated at the beginning of a new fiscal year, an analysis of the funding levels for each of the Navy CINC's programs is conducted. If this analysis determines any of the CINC's programs are inadequately funded, CINCPACFLT leadership may determine that reprogramming funds between programs is necessary. Some CINCPACFLT reprogramming decisions result in the transfer of funds from the FHP account to other CINC programs. Reprogramming decisions can dramatically impact the daily operation of the FHP at CNAP and result in a number of additional challenges in managing this already difficult program [Ref. 3:p. 49].

Since CNAP is the principle manager of the FHP, CINCPACFLT delegates the FHP execution responsibility to him. However, CINCPACFLT budget analysts and operations personnel monitor the program through daily telephone calls and

program monitoring. These personnel monitor CNAP FHP obligation rates to see how funds are being spent, and conduct monthly reviews of the program by T/M/S to ensure fleet readiness goals are being achieved, and to discover potential mission trouble areas [Ref. 3:p. 49].

The next chapter will review FHP budget execution at CNAP during fiscal years 1998, 1999, and 2000. Budget execution strategies, techniques, and trends will be discussed in view of perennial program under-funding.

IV. FLYING HOUR PROGRAM BUDGET EXECUTION AT COMMANDER NAVAL AIR FORCES PACIFIC: 1998, 1999, 2000

A. ENVIRONMENT OF COMPETING PRIORITIES AND LIMITED RESOURCES

Budget execution is ultimately where the FHP budget is validated to assess whether sufficient funds have been forecasted and allocated to achieve the flying hour requirements of CNAP. Because of overall federal budget constraints, competing priorities and limited resources, the final version of the OP-20 often contains less funding than the originally budgeted OP-20. The hope and expectation during the execution year is that the actual FHP cost data are relatively consistent with the budget estimates. However, in recent years, execution costs for CNAP's FHP have exceeded the budgeted estimates. When FMB passes the "controls" (fiscal FHP dollar limits) to CINCPACFLT, there are less resources available than necessary to fully execute the FHP. CINCPACFLT passes additional controls to CNAP reflecting managerial decisions (withholds) that may reprogram FHP funds for other priorities.

The most influential factor creating FHP funding problems is the fact that there are limited resources to fund any program among competing priorities within the DoN. A constrained fiscal environment and other spending priorities often drive unpopular funding decisions. When this occurs, the onus is on CNAP FHP managers and comptrollers to embark upon "creative financing" to try to achieve aviation readiness goals without committing an Anti-deficiency Act violation.

B. TRENDS IN CNAP'S ANNUAL FHP EXECUTION

1. Beginning of the Fiscal Year

CNAP FHP managers start each fiscal year recognizing that there are insufficient funds to continue operations through the end of the year. CNAP continuously updates CINCPACFLT on their money position. At the start of the fiscal year, CINCPACFLT's execution philosophy and direction to CNAP is to fly the requirement, making necessary expenditures in order to properly execute the program. As the year continues, the reality at CNAP is that they must fly to the dollars.

CNAP normally requests a higher percentage of annual funds for the first quarter of the fiscal year in order to "buy back" the previous year's bow wave. (Bow waves are discussed later in this chapter.) For example, CNAP requested 28 percent of total FHP funds for first quarter FY 01. CNAP is required to provide justification up the chain of command for requesting quarterly funds in excess of 25 percent of annual funding. When CNAP managers determine that there are insufficient funds to continue through the end of a particular quarter, they may request that CINCPACFLT advance money from a later quarter into the current quarter. CINCPACFLT is the custodian for numerous operating funds, including those for Pacific fleet surface and submarine communities, and may or may not have resources available to advance to CNAP for the FHP. CNAP managers prefer not to request advances from CINCPACFLT unless absolutely unavoidable [Ref. 15].

2. Reprogramming

During the execution of FHP funds, several opportunities exist to shift or reprogram FHP dollars. This occurs because of changing priorities, and insufficient funding levels for other programs. Reprogramming is designed to give operational and

financial commanders increased flexibility to meet unforeseen program changes that may occur during budget execution. With approval from the chain of command, CNAP FHP managers can reprogram up to \$15 million between fund codes [Ref. 16]. They shift money within the FHP from an under-executed account (if one exists) to an over-executed account. In the second quarter of FY 01, CNAP shifted money from TACAIR/ASW (1A1A fund code) to the smaller FAT (1A2A fund code) in order to close out quarterly budgets in the black. When CNAP managers shift resources between fund codes, often money is moved from 1A1A to 1A2A. The priority resides with the smaller FRS account that provides funding for training replacement pilots and other aircrew [Ref. 15].

CNAP managers routinely reprogram money from the FHP to the smaller Flying Other (FO) account that has experienced under-funding the past several years. Even though detrimental from a cash management perspective, augmenting some of these programs out of the current year FHP budget is essential. For example, if missile range and/or temporary assignment of duty (TAD) funding is inadequate, squadrons may not be able to achieve the required training because they can't fully utilize the facilities and pay the travel expenses for people, regardless of the available flight hours. The support programs are integral to achieving the readiness milestones necessary to deploy a combat capable force.

3. Quarterly Shortfalls

CNAP has problems each quarter with requirements exceeding available cash. As the funds provider to operating units, they do not want to order squadrons to stop flying operations because of a cash flow problem. The distribution of funding on a quarterly

basis causes CNAP to experience timing issues for incurring liabilities. The problem is similar to a bank obtaining coverage by the federal reserve. The bank knows the money is there, but has not yet received it. As available resources are spent toward the end of a quarter, CNAP managers know that the new quarter's resources will come, but cash has not yet been distributed by CINCPACFLT.

4. Execution Philosophy

During the first seven months of FY 01, CNAP managers' estimates for the current year FHP funding shortfall have ranged from \$250 to \$325 million. The entire shortfall does not manifest itself all in the fourth quarter; rather, it works its way through the year. The CNO directs CINCPACFLT to fly 83 percent PMR, and CNAP must determine how to accomplish this aviation readiness goal. They monitor overall daily spending rates and consider timing of employment of the aircraft carriers in the deployment cycle. CNAP managers must make decisions such as how low to deplete flying hours of the two Air Wings at home. Because of enormous funding shortfalls, in a worst-case scenario, they may have to temporarily halt flying operations of squadrons returning from deployment. Part of the job of CNAP managers is to ensure that squadrons among the TACAIR, helicopter, patrol, and other aviation communities equally "share the pain" of under-funding. With the limited funds available and number of reporting units, trying to properly allocate resources to the squadrons throughout the year becomes a huge cash flow juggling act [Ref. 15].

If CNAP managers communicate an impending funding shortfall to the fleet, units may constrain themselves because of money. CNAP managers promote prudent program execution yet avoid constraining fleet flying. The signals that CNAP managers send

during execution are very important. Limiting fleet operations because of money shortfalls would artificially reduce the FHP, ultimately misrepresenting its true cash requirements. This would be detrimental because the starting point in budget formulation for future years is what is spent in the current year.

5. Challenges with Reporting Units

Once CNAP managers distribute quarterly funding to the fleet, managing flying hour execution rates and maintenance expenditures is the responsibility of individual squadrons, air stations, and other reporting units. Although managers at CNAP direct fleet units to fly the requirements and not to be constrained by available dollars, some Commanding Officers may view requesting additional funds as a poor reflection on their command. Therefore, command influence at the unit level plays a role in execution. Commanding Officers may attempt to stretch available dollars with various management techniques. Canceling requisitions for aircraft parts, rescheduling training events, or delaying needed aircraft maintenance are methods to temporarily defer costs. With over one hundred different reporting units, there are different levels of management controlling in the execution process and different styles within the various units.

Additional challenges with which CNAP FHP managers must contend include accuracy and timeliness in reporting by units. Reporting errors in a unit's 7B (fuel) OPTAR may occur on calculations with fuel chits, causing unexpected overages or shortages in OFC-01 accounts. CNAP must be extremely careful about overspending their accounts. Because of a lag in reporting obligations, not all costs are captured by the accounting system in the quarter in which they occur. Often bills exist for which CNAP is liable, yet CNAP may be unaware of their existence. CNAP must routinely manage

the risk of Anti-deficiency Act violations because requirements often exceed final monetary authority.

6. Conclusion of Fiscal Year

As CNAP managers continue to monitor daily FHP expenditure rates throughout the year, available cash dwindles. They have advanced money as far forward as possible and can now project a date that they will have to completely stop all fleet operations because all money will be expended. This date is usually in early to mid fourth quarter. To continue operations, managers must rely on funding relief to overcome shortfalls.

As shortfalls are communicated up the chain of command, CNAP money managers monitor progress on potential sources of funding relief to know when to order all fleet units to stop spending and cease operations. CNAP managers describe the process as trying to determine “when and how hard to slam on the brakes” [Ref. 15]. They do not know if funding relief will be forthcoming, how much it will be, nor when it will occur.

7. Funding Relief

One form of funding relief comes from the distribution of “contingency funds.” Contingency funds are appropriated by Congress to offset costs of ongoing “known” operations. An example of known contingency funds were those used to fund Operation Southern Watch (OSW) in Iraq in FY 98. These funds came from the Overseas Contingency Operations Transfer Fund (OCOTF) and once appropriated by Congress and released by OSD are held by FMB and provided only when fleet operations in direct support of contingencies exceed the appropriated FHP budget. “Unknown” contingency funds are appropriated through emergency supplemental bills to cover unforeseen

contingencies. An example of unknown contingency funds were the funds passed in July 1998 to cover the unplanned costs of deploying a second aircraft carrier to the Persian Gulf.

The use of contingency funds to finance FHP shortfalls is currently under debate [Ref. 17]. In theory, contingency funding is designed to be purely incremental. To some people within various levels of the FHP financial organization, it appears that CNAP is using contingency funds to offset pricing problems in the OP-20. Contingency funds are not supposed to offset a pricing problem; rather their intended use is to support the extra financial burden of flying contingencies above the normal level of operations. From CNAP's point of view, without contingency dollars they would be unable to make it through the year.

Additional sources of funding relief may come from CNO Reserve (withhold at the CNO level), reprogramming from other accounts within the DoD appropriation (for example from procurement accounts), or Defense supplemental appropriations from Congress.

If units within CNAP are flying high sortie rates in support of contingencies during the first quarter of the fiscal year, they may expend cash faster than is available. This is another case in which CNAP will request to move money forward. CNAP managers describe this as "covering contingencies out-of-hide." They are loaning themselves their own money to pay the cost of contingencies until reimbursed later in the fiscal year. CNAP managers continually attempt to reconcile timing issues associated with the expenditure and receipt of cash.

The Navy mid-year review process affords CNAP managers another opportunity to communicate shortfalls up the chain of command. Following mid-year review, the critical question becomes “Will we get the funding relief requested in the mid-year review process from a Defense Supplemental appropriation or some other mechanism toward the end of the fiscal year?” When CNAP does receive funding relief, but the amount received is insufficient to meet requirements, they then scramble to figure out how to make it through the end of the year. For example, they conduct “what if” drills of shutting down Air Wings for 30 days to 60 days to determine how much they could avoid spending.

8. Withholds

The FHP is the largest financial account that CNAP manages, and has been subject to withholdings to fix other funding shortfalls. CNAP has no control over these types of “reprioritizations” imposed by higher levels in the chain of command. These actions affect not only the FHP budget, but other OM&N accounts as well. Budget managers do not know what will be the final withhold or tax that will be levied against their programs, but monitor discussions in the summer review process. By the time the fiscal year starts and the budget has been received, managers concern themselves with execution, and cannot influence decisions to tax their program.

Over the past several years CINCPACFLT has withheld money from the FHP account to fund enhanced fleet computer operability with initiatives such as the Navy-Marine Corps Intranet (NMCI), Y2K improvements, and Information Technology for the 21st Century (IT-21) [Ref. 17].

9. Unanticipated Expenses

Another challenge in executing the FHP is the annual occurrence of unexpected expenditures. These expenditures are often significant and can cause major fiscal difficulties for CNAP FHP managers. These unanticipated expenses are referred to as "emergent unfundeds." Emergent unfundeds generally arise because of unforeseen maintenance costs associated with reliability problems with aircraft components. The fleet issues maintenance bulletins because of a mishap or inspection that uncovers a defect that may ground an entire aircraft type until the problem is corrected.

Over the past several years, AV-8B aircraft have suffered numerous engine component failures. On 5 OCT 2000, the Naval Air Systems Command (NAVAIR) issued a Flight Restriction Message grounding AV-8B aircraft powered by F402-RR-408B engines because of a dual component failure of the primary and backup enhanced variable inlet guide vane controller system experienced during a ground start sequence [Ref. 18]. The FHP is not resourced to fund these types of engine repairs that require engineering investigations and testing. Often, however, FHP funds are used to pay for repairs to aircraft that have been grounded or "red-striped" when NAVAIR does not have procurement (APN-5) funds available.

Marine Corps AV-8B and H-53 aircraft have recently experienced numerous failures, which have resulted in grounding of these airframes. Normal operating costs of these two aircraft comprise approximately half of the Marine Corps portion of the FHP. Because of their recent groundings, the Marines under-executed their portion of the FHP budget for first quarter FY 01 [Ref. 15].

C. ANNUAL COST DEFERMENT METHODS

1. Bow-Waving

The primary annual financing mechanism that CNAP uses to sustain flying operations through the fiscal year is called “bow-waving.” Bow-waving refers to deferring the cost of something from the current fiscal year to the next fiscal year. CNAP uses this technique with Aviation Depot Level Repair parts (AVDLRs) in order to keep aircraft operating. When a Ready for Issue (RFI) repair part is taken from the “shelf” the bad or broken part is inducted into the depot facility for repair if the item cannot be fixed at the Aviation Intermediate Maintenance activity (AIMD). To prevent the charge in the current fiscal year, the AIMDs will retain the AVDLRs until the next fiscal year. This cash flow technique enables fleet units to continue flying when the budget would have been exhausted if the AVDLRs were processed. However, the practice of bow-waving ensures further under-funding in the future because the costs of the bow-wave are not part of OP-20 pricing. Table 4.1 shows the cost of AVDLRs that were bow-waved in the past four fiscal years.

FISCAL YEAR	AMOUNT
97	\$65M
98	\$26M
99	\$55.5M
00	0

Table 4.1. Bow-Waved Amounts [Ref. 15].

2. Unfilled Customer Orders (UCOs)

Another cash flow transaction CNAP has used to get through the execution year is Unfilled Customer Orders (UCOs). UCOs are a cash flow generating strategy in which fleet operating units administratively cancel or de-obligate outstanding

requisitions for AVDLRs to recover the cash as a means to pay for more urgent requirements. This strategy is a mechanism used by CNAP to prevent over-obligation of budgeted FHP funds. Under the agreement between CNAP and Navy Inventory Control Point (NAVICP), all requisitions cancelled must be re-ordered within 45 days after the new fiscal year [Ref. 3:p. 181].

D. BATHTUB EFFECT

As CNAP managers have struggled to maintain the viability of FHP budgets, they have been forced to reduce funding allotted to squadrons in the Inter-Deployment Training Cycle (IDTC). The resultant reduction of flying hours and PMR for squadrons has created what CNAP managers refer to as the bathtub effect (Figure 4.1). The height of operating tempo occurs during deployment for Naval forces. As units return to the United States from overseas deployments, some crews rotate and new replacement personnel arrive, there is an expected decrease in the level of flying from the high tempo of deployment. Within the first couple of months upon returning, leave, training and rotations occur. Readiness levels decrease as crews are dismantled and the process of training for the next deployment begins [Ref. 17].

To stay safe and proficient however, flying still occurs but at reduced levels from deployment. As funding levels have been reduced in recent years, the easiest target for reduction of flying has become the “home guard” squadrons. The trend in recent years is to reduce IDTC squadrons to lower levels of PMR.

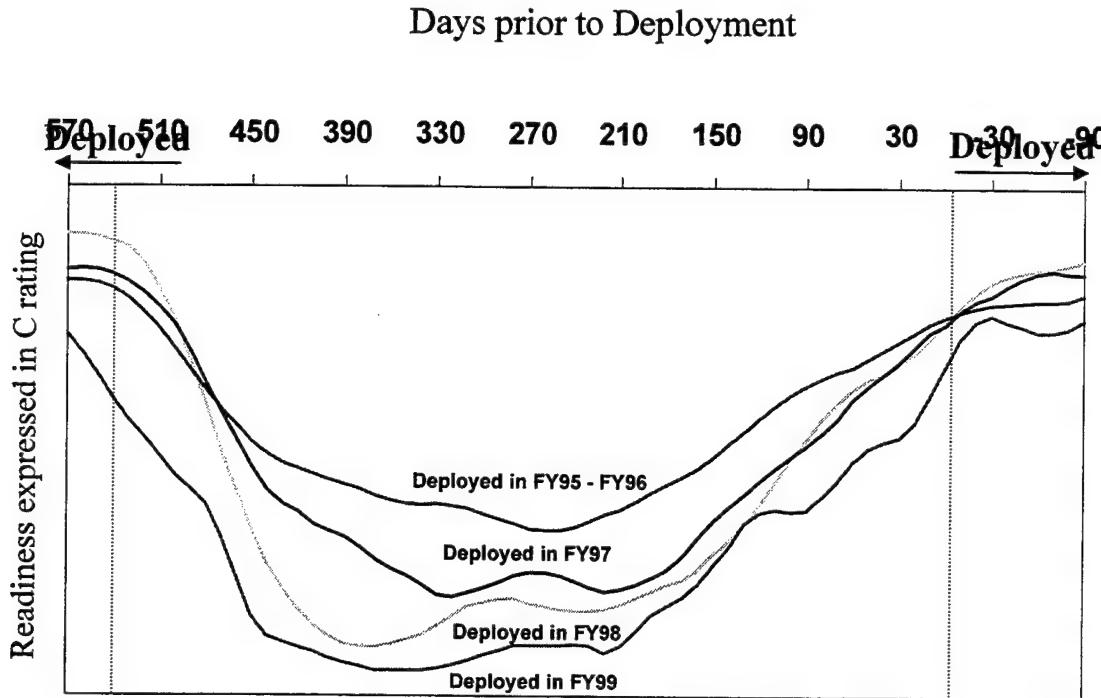


Figure 4.1. Bathtub Effect.

Although difficult to quantify for the entire force, CNAP managers report aggregate PMR execution rates of 57-60 percent for carrier aviation squadrons from the month of return from deployment through the tenth month prior to deployment for fiscal years 1998 to 2000. For FY 01, funding for this same time period in the IDTC has been reduced to 53 percent PMR [Ref. 17].

As the depth of the bathtub increases, proficiency atrophies as pilots fly fewer hours per month. The real concern of planners is that there is a steeper ramp going on deployment coming out of IDTC. As aircrews are faced with increasing intensity and more challenging flying during deployment, their skills may not match the level of flying required because of the reduction in flying hours throughout the IDTC.

E. MARINE CORPS EXECUTION STRATEGY

Marine Corps execution strategy does not include the bathtub effect, because they do not have an IDTC. Without a deployed versus home guard mentality, all Marine Corps units must be ready to deploy at all times, retaining higher readiness levels. The Marine Corps portion of CNAP's FHP is smaller than the Navy's program (35 percent to 65 percent split) and affords less flexibility to reduce PMR. Marine Corps execution philosophy, in general, is to fly all units at the same level, not reducing PMR regardless of financial shortfalls. In theory, when they run out of money, they stop operations completely. Although the Marine Corps' philosophy of continuing to fly the requirement and then completely canceling operations when money is expended has the appearance of Draconian tactics or brinksmanship, they have yet to actually shut down squadrons [Ref. 19]. However, it is a more cost conscious approach and has the advantage of quickly garnering senior leadership attention.

Connected to Marine Corps FHP execution strategy is implementation of the Marine Aviation Campaign Plan (MACP) that began in FY 97. The objective of this concept is to maximize aviation combat readiness within the resources available. It is a shift driven by many factors including safety, manning and aircraft material condition. It incorporates a need to change the rate at which the Marine Corps flies its aircraft and by a requirement to provide for the long-term health of both its people and equipment. The MACP was designed to move away from the FHP paradigm that rewards flying an OP-20 projection regardless of its supportability. The key concept behind the MACP is to better balance resources against readiness requirements [Ref. 20]. The MACP is based on the system used by the Air Force to allocate flying money.

F. FISCAL YEAR 1998

In October 1997, the CNAP FHP balance sheet showed an estimated \$163 million shortfall for fiscal year 1998 (Table 4.2). This shortfall was due to a combination of issues, including under-pricing of the OP-20 cost per hour (CPH). A decision was made by FMB in July of FY 96 to not recognize FHP cost escalation during the POM 98 summer review. Due to funding constraints, FMB chose not to re-price the FHP and allocate additional funding to adjust for this cost growth. The overall impact of that affordability decision resulted in a flawed budget base that was perpetuated throughout the POM. Although a new approach by N-78 was in place using the most recent year's execution costs instead of a three year moving average, the forecasting methodology was deficient in not including the previous year bow wave cost in the following year forecast. The reason the previous year's bow wave was not included was because of limited resources and other funding priorities. The estimated bow wave cost that was rolled into FY 98 from FY 97 was \$65 million [Ref. 21].

SHORTFALLS	
Delta (OP-20 vs Controls)	\$ (116,000,000)
CPH Under Pricing and Bow Wave	\$ (89,000,000)
UCO Inventory Buy Back	\$ (12,000,000)
Critical Unfunded Requirements	\$ (16,000,000)
Increased AVDLR Cost	\$ (14,000,000)
Reprogramming	\$ (24,000,000)
Total	\$ (271,000,000)
ASSETS	
Contingency dollars	\$ 40,000,000
Maintenance efficiency	\$ 30,000,000
USN/USMC reimbursables	\$ 10,000,000
USN/USMC supply credits	\$ 10,000,000
USMC hours asset	\$ 18,000,000
Total	\$ 108,000,000
FHP Delta	\$ (163,000,000)

Table 4.2. CNAP's Initial FY 98 FHP Balance Sheet [Ref. 21].

In addition to the buy back of both the UCO and AVDLR bow waves, other items adding to the shortfall included previously known critical unfunded requirements, increased costs of AVDLRs that were not accounted for in the OP-20, and proposed reprogramming of some FHP dollars to the Flying Other (FO) account. The reprogramming was for several of the smaller programs such as TAD, ranges, and staff headquarters. CNAP managers decided that in order to have a fully executable FHP, these programs needed to be funded at the FY 97 minimally executable level. Thus, the decision was made to reprogram \$24 million from the FHP to restore these under-funded programs. These issues, in addition to an initial delta of \$116 million between the OP-20 and the controls that were received from CINCPACFLT comptrollers, resulted in a shortfall of \$271 million.

To offset this shortfall, CNAP looked at every possible asset in order to arrive at an executable program. These assets included funding credits received from decommissioning the USS Independence and the home port change of the USS Nimitz from San Diego to the East Coast. Also included were expenditure reporting delays resulting from the change of aircraft carriers' accounting systems to STARS. CNAP managers also assumed eventual receipt of Congressional supplemental funding and a continuation of the historic level of reimbursables. CNAP is reimbursed for flying operations strictly in support of certain events. For example, flying hour costs are reimbursable for foreign military sales (FMS) demonstration flights for foreign governments considering American aircraft purchases. CNAP managers also counted excess hours identified by FMFPAC from the newly implemented MACP as another asset. In total, CNAP's balance sheet conveyed a very optimistic view that held nothing

in reserve, but still forecasted a shortfall of \$163 million, split between Navy and Marine Corps. It even included \$30 million in maintenance efficiencies, which had yet to materialize [Ref. 21].

The FY 98 execution strategy focused on the following goals:

- Achieving 83 percent PMR
- Ensuring all forces deployed C-1 or, at a minimum, C-2
- Fully funding the FRS
- Funding critical FO shortfall to ensure a balanced program
- Eliminating the bow wave that had been built up over the last two years

As a result of discussions between CNAP and CINCPACFLT staff members in October 1997, CINCPACFLT agreed to fund the FHP at the OP-20 level as CNAP requested, restoring \$116 million to the FHP. Although a \$47 million shortfall remained, CNAP managers were optimistic that between further cost management initiatives and the option to fall back on another bow wave, this shortfall was manageable. With that funding level, they decided to execute at an 83 percent PMR rate for the first quarter in order to deploy forces C-1 or C-2, and fully fund Fleet Replacement Squadrons (FRS) and Fleet Air Support. This plan called for a re-evaluation after the first quarter to see if any adjustments were needed.

However, the optimism from October was greatly reduced as the year progressed. With the cost of the bow wave included, CNAP started the year running about 30 percent above OP-20 CPH. Changes to funding were significant and placed the FHP in a difficult position. CNAP continued to monitor costs in order to find every possible efficiency.

By March 1998, additional changes had taken place, further deteriorating the funding picture. Most notable was the withdrawal of funding that had been provided for

the buy back of Unfilled Customer Orders (UCOs) of \$27.5 million. Table 4.2 “UCO buy back of \$12 million” reflects the amount remaining (\$10.5 million had already been bought back) to buy back \$40.5 million of FY 97 UCOs at FY 98 prices (\$50 million) minus the amount included in the controls (\$27.5 million). Also, CNAP was directed to fund all temporary assignment of duty (TAD) after first quarter at the Proportional Meal Rate (PMR) instead of the less expensive Government Meal Rate (GMR). In addition, FMB recouped the excess hours that FMFPAC had identified as a result of the Marine Aviation Campaign Plan. The net result of these changes gave CNAP a much more challenging \$105 million shortfall to work off from March through the last seven months of FY 98.

CNAP's under-pricing estimate went up as a result of UCO withdrawal. FMB informed CNAP at the February 98 Flying Hour Conference that, while the UCO money had been reprogrammed to plus up the Manpower account, they had originally put an “extra” \$29 million in the OP-20 that had become available from a \$322 million Congressional plus up. This money had been in the OP-20 since October, and had been transparent to CNAP, as they still estimated it to be under-priced by \$65 million. FMB's position was that even though the \$27.5 million had been withdrawn, CNAP should be able to execute the FY 98 requirement since the “extra \$29 million” was in the OP-20. In order to reflect their view of the budget, CNAP reduced the UCO shortfall by \$29 million and transferred that shortfall to under-pricing. The bottom line is that CNAP lost \$27.5 million.

Additionally, CNAP originally had another \$10.5 million in the asset column, which was the difference between the funding that had been promised when they started

the UCO program, and what was actually put in the OP-20. CNAP intended to hold FMB's "feet to the fire" and briefed in October as "money we need CINCPACFLT help to go after during this execution year." With the withdrawal of the original \$27.5 million, CNAP decided it was prudent to stop counting that additional \$10.5 million as an asset. Thus, in total there was a \$38 million loss [Ref. 21].

Also, the decision was made to put an additional carrier in the Gulf. The incremental cost of that added presence was estimated at \$48 million per year. CNAP counted on getting this additional funding as a result of an Emergency Supplemental package that had been submitted.

After the first several months of FY 98, units had "bought back" the \$65 million of bow waved AVDLRs, and cost per hour (CPH) stabilized at 11-12 percent above OP-20 pricing. This meant that the FHP was under-priced by \$72 million.

In March 98, CNAP devised four potential options to get them through the remainder of the fiscal year:

- OPTION 1: Continue flying at the 83 percent PMR level until the 19th of August when they expected to run out of money. Since two Air Wings were scheduled to deploy during the fourth quarter, this option was a "non-starter".
- OPTION 2: Fly to the dollars with a uniform reduction of 17 percent across the force. This option would fund deploying units at 95 percent PMR instead of 115 percent PMR and would have a serious impact on readiness, as was the case when the Constellation Battle Group deployed in FY 97.
- OPTION 3: Fully fund the deployed units but shutdown home guard squadrons. There would be only two Air Wings at home during the fourth quarter and even after factoring in the Fleet Air Support squadrons, CNAP would not be able to make up the \$79 million shortfall by "parking aircraft" alone. To make this option work, they would have to rely on shortfall reduction initiatives to make up \$56 million and save the

remaining \$23 million by parking home guard units beginning 27 July for the remainder of the year.

- OPTION 4: Continue shortfall reduction initiatives to realize \$52 million of the shortfall and increase the bow wave to make up the remaining \$27 million.

CNAP managers selected option 4 as the best course of action. They were already counting on a \$20 million AVDLR bow wave and \$15 million in UCOs. Adding \$27 million to the AVDLR bow wave would result in an unprecedented level of deferments into FY 99, and one that they were not entirely sure they could reach without impacting aircraft readiness before the end of FY 98.

Additionally, the CNAP staff brainstormed a list of one-time initiatives to reduce or defer costs in four separate areas. Supply initiatives included turning in spare parts. Maintenance/AIMD initiatives included reducing AIMD overhead expenses, engine repair costs, and helicopter pack-up kit (PUK) costs. Budget initiatives included reducing Funding Other (FO) reprogramming and reducing IT-21 expenses. Operations initiatives included standing down units returning from deployment and canceling a bilateral US/Japanese exercise (RIMPAC) for USS Vinson and amphibious "L-deck" ships.

Even realizing the full benefit of all these shortfall reduction initiatives would still leave the FHP \$27 million short. The only alternative, short of substantial mid year funding relief, was to increase the AVDLR bow wave an additional \$27 million to bring the total to a \$47 million USN AVDLR and \$15 million USN UCO bow wave. However, in the end this plan would achieve three of their five primary goals (83 percent PMR, deploy C1/C2, fully fund FRS).

With its aggressive cost reduction plan and by bow waving \$26 million of AVDLRs, CNAP managers were able to get though the year without completely shutting

down operations. By creating these internal efficiencies throughout the force and with Congressional funding relief, they executed 79.4 percent PMR for FY 98.

G. FISCAL YEAR 1999

As FY 99 began, CNAP estimates of the total FHP shortfall for the year ranged from \$101 to \$112 million. They estimated CPH under-pricing in the OP-20 of \$80 million [Ref. 22]. In view of their financial position, they considered four separate execution options:

- OPTION 1: Fly an aggregate 83 percent PMR until funds are exhausted. Assuming a \$112 million shortfall for the year and an average \$1.9 million expenditure rate per day for fuel alone, CNAP planners estimated operations would have to be stopped on the 2nd of August.
- OPTION 2: Fly 83 percent PMR until the 1st of April and then reduce execution rates across the force by 25 percent. Adjusted USN/USMC TACAIR PMR for third and fourth quarters would be 61 percent.
- OPTION 3: Completely stop operations for home guard squadrons. Shutting down two IDTC Air Wings would save \$6.2 million per month. This option would require additional cost reductions as well.
- OPTION 4: Execute the FHP at overall 83 percent PMR, ensuring that all forces deploy at C-1 or C-2 and fully fund Fleet Replacement Squadrons (FRS). CNAP would re-evaluate CPH and execution performance in late first quarter and use a bow wave as a last resort.

CNAP managers closely monitored execution rates and selected option 4 as the best option [Ref. 23].

During execution late in the first quarter, CNAP revised their funding shortfall (Table 4.3)

SHORTFALLS	
CPH Under Pricing	\$ (44,000,000)
Critical Unfunded Requirements	\$ (21,000,000)
Reprogramming (Y2K, IT-21)	\$ (37,600,000)
USN/USMC Bow Wave	\$ (26,000,000)
Total	\$ (128,600,000)
ASSETS	
Contingency dollars	\$ 49,300,000
USN reimbursables	\$ 6,000,000
USMC reimbursables	\$ 4,000,000
Total	\$ 59,300,000
FHP Delta	\$ (69,300,000)

Table 4.3. CNAP's First Quarter FY 99 FHP Balance Sheet [Ref. 24].

The overall FHP delta had decreased from initial estimates to approximately \$69 million primarily due to significantly lower CPH than first projected. However, numerous emergent unfunded requirements were occurring. Increasing contract maintenance costs, costs associated with repairing aging H-46 and H-53 helicopter transmissions and power units, and costs to overhaul AV-8B, F/A-18 and EA-6B engines were unanticipated costs that CNAP managers had to fund out of the FHP in order to keep execution rates up. Included in the pressure on CNAP's FHP budget was a decision by CINCPACFLT to withhold \$23 million from the FHP to provide for Y2K funding.

As the fiscal year continued, CNAP managers realized that they would be financially unable to continue operations even with the expected FY 99 Congressional supplemental funding. Examining the 1A2A account, the FRS portion was already

funded below what they considered a minimum acceptable level. The Fleet Air Support (FAS) portion of the budget was also extremely lean. Thus, there was no room for further reduction in the 1A2A fund code.

Cutting additional funding to the TACAIR/ASW (1A1A fund code) was the only option. CNAP managers ordered the reduction of aggregate PMR for TACAIR and Patrol Aviation squadrons (VP) to 76 percent. Returning Air Wings were funded at 40 percent PMR for six months. Helicopter (HSL) squadron execution rate was held at 72 percent PMR.

At the close of FY 99, AIMDs were forced to slow down or suspend work because of a lack of available funds. Additionally, stock and pool supply items were depleted in order to avoid buying new parts. This impacted aircraft availability and operations into the start of FY 00. The Nimitz alone had \$32 million of deferred purchases in FY 99.

The final funding of FY 99's budget (excluding Take Charge and Move Out (TACAMO) funding) is shown in Table 4.4.

Controls from CINCPACFLT	\$ 1,290,000,000
Control Plus/Minus	
Net Marks/PBD issues	\$ (51,000,000)
Contingency Funds	\$ 87,000,000
CRB Decisions	\$ 27,000,000
Y2K Plus Up	\$ 10,000,000
FY99 Supplemental	\$ 58,000,000
Total FHP Funds Available	\$ 1,421,000,000
CINCPACFLT Withholds (Y2K, IT-21)	\$ (53,000,000)
CNAP reprogramming to Underfunded Programs (Staff OPTAR, Ranges, TAD, Simulators, AIMD)	\$ (30,000,000)
Total Funds Spent on FHP	\$ 1,338,000,000

Table 4.4. Final FY99 CNAP FHP Funding [Ref. 25].

With this total expenditure, CNAP was able to achieve an overall 80 percent PMR, but created a \$55.5 million bow wave to reach year's end. This 80 percent execution, 3 percent short of the CNO goal, was due primarily to lack of parts and airframes associated with the year's end bow wave.

To achieve the additional 3 percent to reach the CNO goal of 83 percent PMR, an additional \$30 million would have been required. Therefore, from CNAP managers' viewpoint, the total cost in FY 99 to fly the full 83 percent PMR with no bow wave would have been another \$85.5 million above the \$1,338 million that was expended, for a total of \$1,423.5 million (\$133.5 million above OP-20 budget).

In subsequent discussions, N78 and FMB contended that although not in the initial OP-20, sufficient funds to fully execute CNAP's FHP were eventually distributed to CINCPACFLT through the contingency and supplemental augments. They argued that during execution, CNAP's expenditure of \$52.5 million on emergent unfunded bills were

rightfully NAVAIR bills. When discussed with NAVAIR representatives, they stated that they had no procurement (APN-5) funds available to apply to these unfunded bills, and obtaining necessary funding would have taken a long lead time [Ref. 25].

Additionally, N78 and FMB emphasized that they are not responsible for the reprogramming actions by CNAP nor withhold by CINCPACFLT. CNAP managers had reprogrammed \$30 million during FY 99 execution to restore various smaller program funding to adequately execute the FHP. Also, neither N78 nor FMB denied that the \$53 million expenditure for Y2K and IT-21 was required; the issue with budget officials was that it was not rightfully a FHP bill [Ref. 25].

H. FISCAL YEAR 2000

Assessing first quarter FY 00 execution data, the estimated FHP shortfall was \$125 million (Table 4.5). Major contributors to the projected shortfall were the FY 99 bow wave, a withhold by CINCPACFLT to pay for IT-21, CNAP reprogramming to augment under-funded FHP support programs, and emergent unfundeds. Emergent unfundeds included the cost of maintenance contract field teams being used to compensate for a shortage of trained personnel in AIMDs and unexpected P-3C and C-130 aircraft cost increases [Ref. 26].

SHORTFALLS	
CPH Under Pricing	\$ (10,900,000)
FMB FHP Deferral	\$ (39,400,000)
East Timor Contingency Costs	\$ (9,900,000)
CINCPACFLT Withhold	\$ (27,000,000)
Reprogramming	\$ (19,000,000)
Emergent Unfundeds	\$ (32,100,000)
FY 99 Bow wave	\$ (55,500,000)
Total	\$ (193,800,000)
ASSETS	
Contingency dollars	\$ 49,000,000
USN/USMC reimbursables	\$ 7,000,000
USMC hours asset	\$ 12,600,000
Total	\$ 68,600,000
FHP Delta	\$ (125,200,000)

Table 4.5. CNAP's Initial FY 00 FHP Balance Sheet [Ref. 26].

However, reviewing the previous year's historical execution data, to fly an 83 percent PMR program with no bow wave or inflation or other price increases would have cost \$1,423.5 million. \$1,256 million was currently available to fly the FY 00 program, equating to as much as a \$167.5 million shortage from a fully funded program. These calculations assumed no further increase in emergent unfunded costs and no additional diversion of available FHP funds to other programs.

Another issue that frustrated CNAP FHP staff was the discrepancy between their OP-20 funding and what was allotted to Commander Naval Air Forces Atlantic (CNAL). OP-20 flight hour costs between CNAP and CNAL were substantially different for the same type/model/series (TMS) aircraft. In the aggregate, CNAP was funded for approximately 19,000 more hours than CNAL, but received less funding. Had CNAP's

hours been funded at CNAL CPH for each TMS, CNAP would have received \$42 million more in OP-20 funding for FY 00. While there might have been rationale for different costs between coasts flying the same aircraft, it is doubtful that it would have explained a \$42 million differential [Ref. 25].

The explanation for the disparity between CNAP and CNAL funding lies in CNAL's under-execution of PMR two years prior, which artificially raised their CPH pricing for the FY 00 POM. Subsequently, CNAP and CNAL discussed methods for equitably distributing the funding shortfall between the two TYCOMs. However, this "pain sharing" plan did not sell well with CNO staff members, as many felt CNAP's problem was the result of past CINCPACFLT decisions to tax the FHP for IT-21 procurement [Ref. 27]. Additionally, there were significant shortfalls in other CINCLANTFLT claimant accounts that needed the dollars. Therefore, no CNAL to CNAP resource transfer ever happened.

For the first four months of FY 00, CNAP executed 82.9 percent PMR. In February 2000, CNAP FHP managers briefed CINCPACFLT on its financial position and considered three options.

- OPTION 1: Continue to execute the program at the current rate, exhausting all funds on the 10th of September. By expending all stocked repairable parts, they could potentially continue operations for an additional week.
- OPTION 2: Reduce operations to achieve a manageable dollar shortfall. This option represented a cut of 25,000 flight hours across the force. The reduction would result in a TACAIR PMR of 74 percent. To accomplish this reduction, CNAP managers would reduce PMR for non-deployed squadrons to 35 percent.
- OPTION 3: Fly to the current funding to achieve 72 percent PMR. This option represented a cut of 32,000 flight hours, further reducing IDTC squadrons beyond option 2, increasing the bathtub effect.

By selecting option 1, CNAP managers continued to fly the requirements of the program during the second quarter. In April FY 00, CNAP managers believed that chances for mid-year supplemental funding were declining. Still estimating a \$125 million shortfall and assuming no further funds would be made available, CNAP managers shifted the execution strategy to Option 2. They further detailed their plan as follows:

- -Continue to fly deployed forces, but hold a rigid cap at 115 percent of PMR
- -Shutdown CVW-2, 9 and 11 for approximately one quarter each. Place aircraft in preservation status with only minimal maintenance, restricting purchases of spare parts and AVDLRs
- -Reduce VP and HSL operations from 83 percent to 67 percent PMR
- -Cut FRS production by 35 percent in the 4th quarter and, as a result, extend some aircrew on sea duty
- -Execute numerous other small cuts throughout the force, attempting to save wherever possible on the margins

Marine Corps (FMFPAC) flight hour planners intended to continue to operate as planned and then execute a total shutdown of both CONUS and deployed aviation forces, if no funds were forthcoming by mid August.

This entire plan was based on no bow waving of AVDLR repairables into FY 01. This decision was made because of the adverse effects of bow waving \$55.5 million of AVDLRs into FY 00. It took until December of FY 00 to recover and get the parts flow back up to speed to fully support operations in all aviation communities. The assessment was that the budget shortfall was simply too large to solve with bow waving. Additionally, the operational schedule for the first quarter of FY 01 had four carriers and Air Wings employed. Bow waving a significant amount into the next fiscal year would not have enabled proper part support for those operations. The above contingency plan

was to be executed in May FY 00. Waiting any longer and continuing to fly at the 83 percent execution rate, without any additional funds, would have jeopardized deployed operations [Ref. 27].

In early June, a "promised" augment figure of \$55 million emerged (in addition to \$65 million in contingency funds), with the breakdown as follows:

Reprogrammed from NAVAIR	\$15 million
Omnibus reprogramming	\$35 million
CNO Reserve	\$ 5 million

Later in June, an additional \$23 million in CNO reserve was secured. FMB sent this money, in addition to the \$5 million in CNO money, to CINCPACFLT in late June. This brought the total new dollars to \$78 million. However, \$15 million of the promised \$35 million Omnibus Reprogramming was rescinded. By reducing expenditures with corresponding PMR reductions for IDTC squadrons during the last quarter, CNAP managers were able to avoid Anti-deficiency violations and achieve an aggregate 76.6 percent PMR [Ref. 15].

I. CHAPTER SUMMARY

	FY 98		FY 99		FY 00
Initial Controls from CINCPACFLT	\$ 1,380	\$ 1,290	\$ 1,289		
CINCPACFLT Withholds (Y2K, IT-21, others)	\$ (27)	\$ (53)	\$ (27)		
CNAP reprogramming to Underfunded Programs (Staff OPTAR, Ranges, TAD, Simulators)	\$ (37)	\$ (30)	\$ (21)		
Contingency Funds	\$ 84	\$ 87	\$ 65		
Reprogramming in, CNO Reserve, Supplementals	\$ 25	\$ 68	\$ 63		
Total Funds Spent on FHP	\$ 1,388	\$ 1,343	\$ 1,393		
Previous year's bow wave	\$ 65	\$ 26	\$ 56		
FHP Funds Spent on Critical Unfundeds (Aircraft Life Cycle Costs)	\$ 16	\$ 53	\$ 32		
PMR achieved	79.4	80.0	76.6		

Table 4.6. Summary of Final Key Amounts for FY 98, 99 and 00 (Millions of Dollars).

Table 4.6 summarizes key final amounts for the fiscal years that have been researched. This table is not intended to serve as a balance sheet, but reflects some of the important amounts identified in this chapter. Numbers are approximate and reflect information provided to the author from multiple sources.

This chapter has explained the trends in budget execution of the Flying Hour Program (FHP) at Commander Naval Air Forces Pacific (CNAP) and detailed specific fiscal decisions and cash management techniques used to overcome budget under-funding during fiscal years 1998, 1999, and 2000. The final chapter will summarize the data presented and provide answers to thesis research questions.

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V. CONCLUSIONS

A. INTRODUCTION

The purpose of this thesis was to explore cash management challenges during budget execution of the Flying Hour Program (FHP) at Commander Naval Air Forces Pacific (CNAP) for fiscal years 1998, 1999, and 2000. This chapter summarizes the answers to the primary and secondary research questions and presents final conclusions.

B. PRIMARY RESEARCH QUESTION

1. What Methods and Procedures Have Been Used to Execute CNAP's Annual FHP Budget to Overcome Under-Funding?

Recognizing that there are insufficient funds to properly execute the annual FHP budget, CNAP managers initially request a higher percentage of annual funding for the first quarter in CINCPACFLT's phasing of funding. As expenditures outstrip resources in different fund codes, reprogramming money and requesting that CINCPACFLT advance funds from future quarters enables fiscally balancing each account. CNAP managers reduce operating tempo for units in the Inter-Deployment Training Cycle (IDTC) and reduce expenses on the margins by leading initiatives to cut maintenance and supply costs.

CNAP managers use cost deferment methods in order to make it through the year avoiding Anti-deficiency violations. These procedures include bow waving AVDLRs to future fiscal years and using Unfilled Customer Orders (UCOs). Throughout the process, CNAP managers monitor expenditure rates and continually communicate shortfalls. By articulating their fiscal position up the chain of command, the hope is that funding relief that will be provided toward the end of the year.

C. SECONDARY RESEARCH QUESTIONS

1. In What Ways Have Fiscal Decisions and Budget Execution Techniques Used by CNAP Managers Affected Operational Units?

Budget execution techniques have negatively impacted non-deployed unit readiness, demonstrated by a significant post-deployment readiness decline (bathtub effect) from which a unit must “climb out” prior to the next deployment. This creates a short-term impact on unit capability to effectively perform assigned missions. Overall reduction of flight hours creates a long-term impact on individual aviator experience and proficiency levels. Flight hours represent an investment in future combat proficiency. By reducing flying hours, Naval Aviation may ultimately be subjected to weaker aviation unit proficiency due to a reduced range of experience.

As CNAP managers have shut down repairables (AVDLR) supply at the end of each fiscal year as a result of the bow wave, operational units have suffered, trying to restore parts flow to adequately maintain aircraft. Cost reduction techniques such as depleting spare part lockers and deployment pack-up kits also create difficulties for squadron maintenance personnel to keep aircraft operational. The associated reductions of aircraft Fully Mission Capable (FMC) and Mission Capable (MC) rates have not been explored in this thesis, e.g., the impact of cannibalization. All of these factors also undoubtedly negatively affect unit morale and retention levels.

2. How Do Contingencies Affect Budget Execution?

Contingency operations cause timing issues associated with the expenditure and receipt of cash. CNAP managers often pay the cost of the contingencies early in the fiscal year and receive money to support contingencies late in the fiscal year. This

exacerbates an already difficult cash flow problem and forces CNAP managers to further use creative financing to make it through the year.

3. What Effect on FHP Execution Has Reprogramming Had?

Reprogramming has given CNAP managers flexibility to meet unforeseen program changes that have occurred during budget execution. To the extent that reprogramming has been used to alleviate shortfalls between FHP fund codes, this tool has been helpful.

However, reprogramming has been detrimental to the FHP from a cash management perspective when used to augment other under-funded programs. FHP dollars have been reprogrammed to pay for aircraft life cycle maintenance (emergent unfunded), contractors to augment undermanned units, training range support and TAD costs (Flying Other), and other requirements. CINCPACFLT's practice of withholding funds from the FHP for various force computer enhancements is essentially a reprogramming at a higher level. All of these expenditures appear to be for valid purposes, but were not part of the programming process when FHP budgets were created. Thus, reprogramming further depletes an already under-funded FHP.

Additionally, reprogramming FHP funds may cause future under-funding as budget analysts may perceive reprogrammed money as excess funds not required for the FHP.

4. What Implication for the Department of the Navy Does CNAP FHP Budgeting Methodology Present?

Navy budget process revisions are essential to stabilizing the FHP and its related programs. Each of the years analyzed in this thesis was characterized by an under-priced OP-20. The proper process for identifying the actual cost of the FHP needs to be defined.

Once actual costs are determined, the OP-20 or an alternative funding mechanism should be priced correctly.

Planners, programmers and budgeters need to acknowledge and fund the requirements that currently force diversion of FHP dollars by correcting the under-funded support programs. A more accurate forecast of actual flying hour expenses can then be achieved and out-year budgets will not be under-funded.

The current budget process forces stovepipe development of priorities and decisions. If the process is not changed and all costs of Naval Aviation are not properly resourced, the FHP will continue to be headed for a "train wreck" every year. The systemic problems causing the shortfalls, if left unchecked, will result in out-year flying hour budgets unexecutable at any acceptable level.

D. CONCLUSIONS

Each year the POM process produces the OP-20 budgeting document that attempts to match resources to requirements and is used as the initial starting point to determine the FHP budget. In budget execution many things happen to the dollars that were originally in the OP-20 budget. When the dollars available to execute the FHP reach the managers at CNAP, the money that was originally in the budget is being used for other programs. Thus, the frustrations felt by CNAP FHP managers cannot be pinpointed to any one entity.

The overall budgeting system does not recognize valid bills from many different programs and fund them; therefore the FHP (CNAP's only real source of discretionary money) is raided every year. The process forces CNAP managers to creatively finance throughout the year, and hope for relief at the end of the year. The resultant dollars to

execute the FHP constitute overly restrictive control on CNAP managers and adds no value to the process of budget execution. Instead, it adds transaction costs to CNAP managers in the form of continually trying to communicate shortfalls, second guessing true Fleet execution, and inventing methods of creative financing, including taking risks of violating the Anti-deficiency Act. The challenges of budget execution documented in this thesis are difficult enough without the additional restrictions of excessive control placed upon CNAP's FHP managers.

The challenge of proper FHP financing through the OP-20 was highlighted by the FY 00 imbalance between CNAL and CNAP funding. There are certainly some differences between operating environments, but a more consolidated approach to funding between the fleets is appropriate. Although not addressed in this thesis, the recent efforts by the two Air Type Commanders (TYCOMs) in coordinating efforts through the Lead/Follow concept appears to be on target. To have both fleet Air Forces execute at the same level is a far more organized approach than having a large difference between the TYCOMs.

FHP budget development and execution trends continue in FY 01. CNAP managers estimate a \$235 million shortfall and hope to receive a Defense Supplemental Appropriation late in the summer FY 01 [Ref. 28]. As in the three years covered in this thesis, large funding shortfalls frustrate FHP manager's efforts in developing a coherent plan to execute the program.

Instead of providing budget relief at the end of the year, proper initial funding of all programs within Naval Aviation, or use of some alternative method of funding flying hours would alleviate the uncertainties and system stress throughout the year and

especially in third and fourth quarter execution. With such substantial reform, CNAP managers will be able to focus on properly supporting fleet requirements, eliminating the need of creative and risky financing. Until restrictive controls are removed, CNAP managers will not meet readiness requirements, they will have to consider shutting down non-deployed squadrons for extended periods of time, and they will risk Anti-deficiency Act violations. All the while, CNAP managers will continue in their charter to support a combat ready Naval Air Force that is fully prepared to go to sea.

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